

David Kotz

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February 27, 2024

Education

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|------|------------------------------|-------------------|------|
| Ph.D | Computer Science | Duke University | 1991 |
| B.A. | Computer Science and Physics | Dartmouth College | 1986 |

Positions

Dartmouth College, Administration

2021– Provost, after 6 months as Interim Provost
2017–2018 Interim Provost (11 months)
2009–2015 Associate Dean of the Faculty for the Sciences (six years)

Dartmouth College, Research leadership

2016–2022 Core Director (Emerging Technologies and Data Analytics), Center for Technology and Behavioral Health
2004–2007 Executive Director, Institute for Security Technology Studies
2003–2004 Director of Research and Development, Institute for Security Technology Studies

Dartmouth College, Faculty: Department of Computer Science

2020– Pat and John Rosenwald Professor (endowed chair)
2019–2020 International Paper Professor (endowed chair)
2010–2019 Champion International Professor (endowed chair)
2003– Professor
1997–2003 Associate Professor
1991–1997 Assistant Professor

Visiting positions

2019–2020 Visiting Professor in the Center for Digital Health Interventions at ETH Zürich, Switzerland
2008–2009 Fulbright Research Scholar at the Indian Institute of Science (IISc), Bangalore, India

Executive summary

David Kotz is the Provost, and the Pat and John Rosenwald Professor in the Department of Computer Science, at Dartmouth College. He previously served as Associate Dean of the Faculty for the Sciences, as a Core Director at the Center for Technology and Behavioral Health, and as the Executive Director of the Institute for Security Technology Studies. His current research involves security and privacy in smart homes, and wireless networks. He has published over 250 refereed papers, obtained \$89m in grant funding, given over 200 invited lectures, and mentored over 100 research students and postdocs. He is an ACM Fellow, an IEEE Fellow, a 2008 Fulbright Fellow to India, a 2019 Visiting Professor at ETH Zürich, and an elected member of Phi Beta Kappa. He received his AB in Computer Science and Physics from Dartmouth in 1986, and his PhD in Computer Science from Duke University in 1991.

Publishing: 264 refereed publications, 403 overall. *h*-index = 78, according to [Google Scholar](#) in February 2024.

Inventing: 11 patents issued, and 3 patents pending.

Funding: Principal Investigator of about \$10m in current research grants with a career total of \$89 million.

Mentoring: 57 undergraduate and 31 graduate students as well as 20 postdoctoral scholars.

Administering: Three years as provost, six years as associate dean, and four years as center director.

Serving: Chair of ACM SIG and IEEE TC; Associate Editor of journals; 39 conference program committees.

Speaking: 202 invited lectures and presentations in conferences, universities, companies, and government.

Consulting: Expert witness for patent and intellectual-property cases.

Honors: ACM Fellow, IEEE Fellow; endowed chair “Pat and John Rosenwald Professor”.

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Administrative and leadership experience

Administrative experience:

- Provost, January 2022 – date.
- Interim Provost, July 2021 – December 2021 (six months).
- Interim Provost, December 2017 – October 2018 (eleven months).
 - As chief academic officer, I oversee and work with six deans to ensure excellence in our academic mission: arts & sciences, engineering, business, medicine, graduate programs, and undergraduate affairs.
 - As chief budget officer, I work closely with the EVP and CFO to determine the \$1B+ university budget.
 - As part of the senior leadership team, I assist with strategy for our \$3B capital campaign.
 - I also oversee research and technology transfer, admissions and financial aid, information technology, sustainability, international programs, the library system, the art museum, the performing arts center, and several topical centers. In 2017–18 I also oversaw institutional diversity and equity and the Title IX office.
- Associate Dean of the Faculty for the Sciences (2009–15); accomplishments include:
 - Hired 29 new science faculty in six years.
 - Mentored 31 junior faculty in the science division; oversaw 36 tenure & promotion cases.
 - Oversaw budget and academic affairs of six departments: Biological Sciences, Chemistry, Computer Science, Earth Sciences, Mathematics, Physics & Astronomy.
 - Chaired the Science Divisional Council, which coordinates academic affairs for the six science departments above and undergraduate curricular affairs for Engineering Sciences.
 - Developed and promoted a new cluster-based strategy for hiring faculty, which is now underway.
 - Organized programs to improve faculty diversity, and personally led Dartmouth into a partnership with the National Center for Faculty Diversity and Development (NCFDD).
 - Oversaw the E.E. Just Program, which engages students of color in STEM fields; hired its faculty director.
 - Developed policy infrastructure to support research-track faculty and research staff.
 - Chaired a broadly representative committee to select an email/calendaring tool for the entire campus.
 - Represented the faculty on committees relating to budget, computing, conflict of interest, major speakers, reaccreditation, science facilities, sponsored research, technology transfer, and undergraduate research.
- Director of the Institute for Security Technology Studies (**ISTTS**) (2003–07); accomplishments include:
 - Managed over \$65m in block-grant funding and dozens of research projects.
 - Led strategic-planning effort and an external review of the Institute.
 - Managed change as we restructured and adapted the Institute to strategic directions.
 - Represented Institute faculty in relations with federal agencies (primarily DHS, NIST, DOJ, NSF).

Research Leadership:

- Principal Investigator of about \$10m in current research grants (p. 5) with a career total of \$89 million.
- Led (and lead) collaborative research groups spanning computer science, sociology, psychiatry, healthcare, engineering, and business, across several universities and every school at Dartmouth College.
- Mentored over 57 undergraduate and 31 graduate students as well as 20 postdoctoral scholars (p. 59).

Other Leadership:

- Co-chaired the Provost’s working group to develop a Strategic Plan for Science at Dartmouth (2016).
- Chaired faculty search committee in the Department of Computer Science four times.
- Chaired numerous research conferences sponsored by professional societies (p. 54).
- Chair of **SIGOPS** branch of the Association for Computing Machinery (ACM), an elected position (2001–03).

International experience:

- Visiting Professor at ETH Zürich for eleven months in 2019–20.
- Fulbright Research Scholar at Indian Institute of Science (IISc) for nine months in 2008–09.
- Co-led a collaborative research project involving Dartmouth, Rice, and IIT Delhi, funded by NSF and India.

Honors and awards

WHILE A PROFESSOR

- **ACM Fellow** (“For contributions to the security, privacy, and usability of mobile systems”) awarded January 2021 by the Association for Computing Machinery.
- **Pat and John Rosenwald Professorship** (endowed chair), July 2020–date
- International Paper Professorship (endowed chair), July 2019–2020.
- ACM Distinguished Member, awarded by the Association for Computing Machinery, November 2018.
- Best Poster Award for our poster **RP3**, at ACM International Conference on Mobile Computing and Networking (MobiCom), October 2018.
- ACM SIGMOBILE Test-of-Time Paper Award, March 2017; for our paper **RC93**. Award Citation: “This paper was the first to systematically demonstrate how to measure and understand a production-scale wireless network, which was previously considered an impenetrable black box. This led to an incredible amount of follow-on work, with the measurement methods and analysis mechanisms proposed in this paper still being used. This paper was also the spark for the creation of the CRAWDAD data repository, which has been of immense value to the wireless research community.”
- Graduate Faculty Mentoring Award, Dartmouth College, April 2015.
- Champion International Professorship (endowed chair), July 2010–2019.
- **Phi Beta Kappa**, initiated by Dartmouth College, Alpha chapter of New Hampshire, June 2010.
- **IEEE Fellow** (“for contributions to parallel and distributed systems and wireless networks”) awarded November 2008 by the Institute of Electrical and Electronic Engineers.
- Fulbright Research Scholar to India, August 2008 – April 2009.
- Senior Faculty Fellowship (extra sabbatical term, chosen competitively), Spring 2009.
- Honorary degree: Master of Arts, Dartmouth College, 2004.
- Friedman Family Fellow (an award for newly promoted faculty), 2003–2004.
- J. Kenneth Huntington Memorial Award for Newly Promoted Faculty, 2003.
- Elizabeth R. and Robert A. Jeffe 1972 Fellow (an award for newly tenured faculty), 1997–1998.
- Class of 1962 Junior Faculty Fellowship (extra sabbatical term, chosen competitively), Winter 1995.

WHILE A STUDENT

- DARPA/NASA Research Assistantships in Parallel Processing 1989–1990, 1990–1991.
- Microelectronics Center of North Carolina Graduate Fellow 1986–1987.
- NSF Graduate Fellow Honorable Mention 1986, 1987.
- Magna cum Laude B.A., 1986.

Funding

Total grants awarded \$89,198,692

AWARDED – CURRENT in reverse-chronological order

Current grants total \$12,604,609, including \$10,032,000 as PI.

NIH ‘All of Us’ program via **VibrentHealth**, \$1,392,895 for 2021–2026 sub-PI
Application Platform for Personalized Engagement. Subcontract via VibrentHealth, which manages the Participant Technologies Systems Center. Learn more at allofus.nih.gov.

NSF SaTC, \$10,032,000 for 2020–2025 (Dartmouth amount \$5,582,047) PI
Security and Privacy in the Lifecycle of IoT for Consumer Environments (SPLICE). With Denise Anthony, Adam Bates, Carl Gunter, Kevin Kornegay, Michel Kornegay, Susan Landau, Michelle Mazurek, Tim Pierson, and Avi Rubin. Learn more at splice-project.org.

NSF SCH via **NIH/NIA R01**, \$1,179,714 for 2020–24 (Dartmouth share \$582,870). Consultant
Exploiting voice assistant systems for early detection of cognitive decline. With Xiaohui Liang (PI), John Batsis, Robert Roth, and Brian MacWhinney. [[Read more.](#)]

AWARDED – PAST in reverse-chronological order

Center for Inclusive Computing, \$60,000 for 2021–2023 PI
Diagnostic Grant. Learn more at this [website](#).

Association for Computing Machinery, \$250,000 for 2009–2023. PI
CRAWDAD: Community Resource for Archiving Wireless Data At Dartmouth. With Tristan Henderson and Chris McDonald. [[Read more.](#)]

NIH/NIDA P30, \$7,141,109 for 2021–2026 2021-22 Core Director
Technology-based Treatments for Substance Use Disorders, NIDA “Center of Excellence” Grant (P30). With Lisa Marsch (PI), Alan Budney, Sarah Lord, Cathy Stanger, and others. The grant continued, but I rotated out in July 2022. [[Read more.](#)]

NIH/NIDA via Clinical Trials Network (CTN), \$1,427,569 for 2019-22. Investigator
Harnessing Digital Health Technologies and Analytics to Understand Clinical Trajectories of Individuals with Opioid Use Disorder in Buprenorphine Treatment. With Lisa Marsch and Cynthia Campbell (PIs), and other co-investigators. [[Read more.](#)]

NSF/CRA CIFellow, \$250,087 for 2020–2022 Mentor
 Computing Innovation Fellows 2020 Project, with Beatrice Perez (CI Fellow). Learn more at cifellows2020.org.

Samsung SmartThings.com, \$449 in-kind for 2020. PI
SmartThings IoT products.

Minim.com, \$344 in-kind for 2020. PI
Minim routers for IoT monitoring.

NIH/NIDA P30, \$6,220,162 for 2016–2021. Core Director
Technology-based Treatments for Substance Use Disorders. With Lisa Marsch (PI), Alan Budney, Sarah Lord, and others. Renewed in 2021. [[Read more.](#)]

NSF CNS, \$2,864,079 for 2016–2021 (Dartmouth share \$2,091,074). PI
Smart earpiece for supporting healthy eating behaviors. With colleagues at Dartmouth (Ryan Halter, Kofi Odame, Xing-Dong Yang) and Clemson (Jacob Sorber, Kelly Caine). Learn more at auracle-project.org.

- National Institute on Aging K23**, \$585,900 for 2016–22. Mentor
Mobile Health Obesity Wellness Intervention in Rural Older Adults. With John Batsis (PI).
- NIH/NIDA via Dartmouth Center for Technology and Behavioral Health**, \$20,000 for 2018–21. PI
Development of a Mobile Application for the Auracle Wearable System for Eating Behavior Monitoring Studies. With Sougata Sen. [[Read more.](#)]
- NSF SaTC**, \$10,136,867 (Dartmouth share \$4,139,814) for 2013–2020. PI
Enabling trustworthy cybersystems for health and wellness. With Kevin Fu (U.Michigan), Carl Gunter (UIUC), and Avi Rubin (JHU). Learn more at thaw.org. [[Read more.](#)]
- Vechain Foundation**, \$189,939 for 2018–20. PI
Privacy-preserving storage of mHealth data using blockchains.
- NIH/NIDA via Dartmouth Center for Technology and Behavioral Health**, \$20,000 for 2018–20. PI
Remote, Home-Based Strength Monitoring for Older Adults. With John Batsis. [[Read more.](#)]
- Senior Faculty Grant**, Dartmouth College. \$138,000 for Fall 2019. PI
Mobile technology for behavioral health.
- NSF CNS**, \$2,721,690 for 2013–2019 (Dartmouth share \$1,825,270) PI
Computational Jewelry for Mobile Health. With Ryan Halter, Andrés Molina-Markham, Sarah Lord (Dartmouth); Jacob Sorber and Kelly Caine (Clemson). Learn more at amulet-project.org.
- NIH/NIDA via Dartmouth Center for Technology and Behavioral Health**, \$20,887 for 2018–19. PI
Development of an open-source state-of-receptivity MobileCoach module for mHealth field studies. With Varun Mishra. [[Read more.](#)]
- Albree Trust**, \$8,500 for 2017–18. PI
Amulet: a custom wrist-worn computing platform for mobile-health research. With Ryan Halter.
- Dartmouth SYNERGY**, \$49,970 for 2017–18. Co-PI
A pilot study of an eHealth-delivered health coaching intervention. With John Batsis (PI).
- NIDRR**, \$44,900 (for me) for 2012–2017 Team member
Development Center to Enhance Evidence-Based Supported Employment Through a Technology-Based Management System. With Sarah Lord (PI), Dartmouth Center for Technology and Behavioral Health.
- NSF (CISE)**, \$336,178 for 2011–15 (Dartmouth portion \$156,178) PI
Collaborative Research: Foundation for Trusted and Scalable Mobile Healthcare
 With Ashutosh Sabharwal (Rice); collaboration with Kolin Paul, Sanjiva Prasad, Manish Sharma (IIT Delhi).
- Intel Corporation**, \$109,020 for 2009–2015 PI
mHealth Privacy Roadmap.
- NSF IIS/HCC**, \$499,670 for 2010–14 (Dartmouth portion \$98,221) Co-PI
HCC: Small: Contextualized and Automated Usability Testing for Mobile Applications.
 With Guanling Chen (PI).
- HHS/ONC (SHARP)**, \$15 million for 2010–14 (Dartmouth portion \$1,513,725) Co-PI
Strategic Healthcare IT Advanced Research Projects on Security (SHARPS).
 With Carl Gunter (PI), Mark Frisse, John Mitchell, Avi Rubin.
- NSF (Trustworthy Computing)**, \$3 million for 2009–2013 PI
Trustworthy Information Systems for Healthcare (TISH).
 With Denise Anthony, Andrew Gettinger, Eric Johnson, and Sean Smith.
- NSF (CISE) supplement**, \$34,795 for 2012–13 PI
Workshop: Securing Information Technology for Healthcare. With Denise Anthony.

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| David Kotz (Funding) | 7 |
| Dartmouth Conference Award , \$35,000 for 2012–13 <i>Securing Information Technology in Healthcare: Part II (SITH2)</i> With Denise Anthony and Tom Candon. | PI |
| NSF (Cyber Trust) , \$300,000, plus \$16,000 REU supplement, plus \$27,088 supplement, for 2009–11. <i>CT-ISG: Dartmouth Trace Sanitization Framework.</i> | PI |
| Fulbright Fellowship (India) \$42,693 for 2008–09. <i>Measuring and modeling wireless networks.</i> | PI |
| Senior Faculty Grant , Dartmouth College. Approximately \$80,000 for Spring 2009 <i>Measuring and modeling wireless networks.</i> | PI |
| DHS-NCSD (Institute for Security Technology Studies) , \$2,314,597 for 2006–11. <i>Dartmouth Internet Security Testbed.</i> With George Cybenko and Guanling Chen. | PI |
| Intel Corporation , \$25,000 for 2007–08. <i>A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.</i> | PI |
| Intel University Research Council , \$142,089 for 2007–09. <i>Data Assurance in Medical Sensor Applications.</i> | PI |
| DHS-NCSD (Institute for Security Technology Studies) , \$622,625 for 2007–08. <i>Metrosense: scalable secure sensor systems.</i> With Andrew Campbell (PI) and George Cybenko. | Co-PI |
| NIST (Institute for Security Technology Studies) , \$1,112,800 for 2006–07. <i>Scalable Secure Sensor Systems.</i> With Andrew Campbell (PI) and George Cybenko. | Co-PI |
| DHS-HSARPA Cybersecurity program, \$1,598,545 for 2005–07. <i>M.A.P. (Measure, Analyze, Protect): security through measurement for wireless LANs.</i> With Andrew Campbell, Guanling Chen, Tristan Henderson. | PI |
| Department of Justice – BJA (Institute for Security Technology Studies) , \$650,932 for 2005–06. <i>Digital Living: Sensors, Privacy, and Trust.</i> With Denise Anthony, Andrew Campbell, and Tristan Henderson. | PI |
| Department of Justice – BJA (Institute for Security Technology Studies) , \$598,015 for 2005–06. <i>Communications, Networking and Application Development.</i> With Susan McGrath (PI), Daniela Rus. | Co-PI |
| NSF Computing Research Infrastructure program, \$500,000 for 2005–08, plus REU supplement \$12,405. <i>CRI: A Community Resource for Archiving Wireless Data At Dartmouth: CRAWDAD.</i> With Tristan Henderson. | PI |
| McKinsey&Company , \$24,882 for 2004. <i>Study of Behavior on the Wireless Network.</i> With Denise Anthony. | PI |
| Intel University Research Council , \$225,327 for 2004–2008. <i>Modeling High-Throughput Wireless Networks Using Real-World Data.</i> With Tristan Henderson and Sergey Bratus. | PI |
| DHS Science & Technology (Institute for Security Technology Studies) , \$1,013,507 for 2003–2006. <i>The Kerf toolkit for intrusion analysis.</i> With Jay Aslam and Daniela Rus. | PI |

- DHS Science & Technology (Institute for Security Technology Studies)**, \$2,961,580 for 2003–2006. Co-PI
An Integrated Approach to Communication, Automated Information Management, and Sensing for Emergency and Disaster Response.
 With Sue McGrath (PI) and Daniela Rus.
- Cisco Systems**, \$89,500 for 2003-04. PI
The impact of VoIP on a campus-scale wireless network.
 With Brad Noblet.
- DoCoMo Labs USA**, \$120,228 for 2003–2006. Solo PI
Evaluation of location-prediction algorithms.
- Cisco Systems**, \$13,139 for 2002. Solo PI
A detailed analysis of usage patterns in the campus-wide wireless network.
- Department of Justice (Institute for Security Technology Studies)**, \$491,876 for 2001–2002. PI
Infrastructure for Distributed Collaboration in Detecting Network Attacks.
 With Jay Aslam and Daniela Rus.
- USENIX Association**, \$16,000 for 2001–2002. Advisor
 With student Guanling Chen. *USENIX Student Scholar*
- Cisco Systems**, \$65,529 for 2000–2001. Solo PI
Wireless networks and context-sensitive computing.
- Department of Justice (Institute for Security Technology Studies)**, \$153,379 for 2000–2001. PI
Assessing and Mining of Data from Network Sensors.
 With Jay Aslam and Daniela Rus.
- DoD DURIP**, \$435,000 for 2000–01. Co-PI
Instrumentation for Wireless Agent Networks and Sensor Webs.
 With George Cybenko (PI), Robert Gray, and Daniela Rus.
- Honda Motor Company** Research Initiation Award, \$30,000 for 1999–2001. Co-PI
Wireless Support Services for Honda Cars.
 With George Cybenko, Robert Gray, and Daniela Rus (PI).
- NSF** Institutional Infrastructure, \$1,360,031 for 1998–2003. Co-PI
Systems Science for Physical Geometric Algorithms.
 With David Nicol (PI), Bruce Donald, and Dan Rockmore.
- Dartmouth College**, \$1,000 for 1998. Associate Fellow
Humanities Institute Tangled Web: Ethical Dilemmas of the Internet
- DARPA** CoABS, \$2,105,884 for 1998–2002, \$306,074 plus \$399,999 for 2001–02, PI
Resource Control in Large-Scale Mobile-Agent Systems.
 With George Cybenko, Robert Gray, and Daniela Rus.
- Air Force Rome Labs**, \$40,000 for 1998, \$79,000 for 1999. Co-PI
Mobile Information Agents.
 With Daniela Rus.
- USENIX Association**, \$22,691 for 1997–98, \$14,967 for 1998–99, \$7,704 for 1999–2000. Advisor
Snowflake: Application-specific Distributed Virtual Computers.
 With student Jon Howell.
- DoD MURI**, \$5,200,000 for 1997–2002. Investigator
Transportable Agents for Reconfigurable Wireless Networks: The ActComm Project.
 With G. Cybenko (PI), D. Rus, P. R. Kumar, T. Başar, G. Agha, H. T. Kung, E. Entin, G. Hjalmtysson.

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| NASA GSRP , \$22,000 for 1996–97. <i>The Galley Parallel File System.</i> With student Nils Nieuwejaar. <i>We turned down the funding due to Nils' impending graduation.</i> | Advisor |
| DOE ASCI program (Sandia National Lab), \$841,133 for 1996–2003. <i>An Extensible File System for High-Performance Parallel Computing.</i> | Solo PI |
| ONR , \$99,863 for 1995, \$38,846 for 1996, \$60,000 for 1996–97, \$95,124 for 1997–98, \$100,000 for 1998–99. Co-PI <i>Autonomous Information Agents: Intelligent, Extensible, and Adaptable Tactical Picture Agents.</i> With Daniela Rus (PI) and George Cybenko. | |
| NASA Ames , \$99,990 + IBM/Dartmouth matching funds \$55,230, for 1994–95. <i>SCORPIO: A Testbed for Tomorrow's Multiprocessor File Systems</i> | Solo PI |
| NSF CISE , \$98,997 + \$19,286 equipment supplement + \$5,000 REU supplement, for 1994–97. <i>High-performance File Systems for Scientific Multiprocessing.</i> | Solo PI |
| Digital Equipment Corporation , \$52,037 for 1994–97. <i>Large-Address-Space Operating Systems, Parallel I/O, and Algorithms on a Digital 2100 Server.</i> With Thomas H. Cormen and Clifford Stein. | PI |
| NASA Ames , \$149,622 for 1993–96. <i>Characterizing the Workload of Multiprocessor File Systems.</i> | Solo PI |
| NASA GSRP , \$66,000 for 1993–96 (renewed twice). <i>High Performance through a Unified Memory Hierarchy.</i> With student Preston Crow. | Advisor |
| Digital Equipment Corporation , workstation approx. \$20,000 for 1993. <i>A Unified Memory Hierarchy for Distributed Computing.</i> | Solo PI |
| NSF , \$29,689 for 1993. <i>Issues and Obstacles in the Implementation of Parallel Algorithms and the Use of Parallel Machines: a Proposal to fund a School on Parallel Programming.</i> With Fillia Makedon (PI) and Donald B. Johnson. | Senior Investigator |
| NSF ILLI-LLD , \$100,000 for 1993–95. <i>It's Never Too Early: Teaching Parallel Computing to Freshmen.</i> With Fillia Makedon (PI) and Donald B. Johnson. | Co-PI |
| Dartmouth College Burke Award , \$15,000 for 1991–94. | Solo PI |
| DARPA/UMIACS Research Assistantship, \$28,185 for 1989–90, \$29,379 for 1990–91. <i>High Performance File System Design for MIMD Parallel Processors.</i> | Student |
| MCNC Graduate Fellowship, \$19,308 for 1986–87. | Student |

GRANT MANAGEMENT

I was the PI on block funding at the Institute for Security Technology Studies (now the Institute for Security, Technology, and Society) at Dartmouth. I was responsible for setting the overall research direction, overseeing the selection and review of projects, budgeting funds, and ensuring technical quality of the overall program. I list above only those portions of these grants where I was project lead or co-lead, actually conducting the research. I list below the total amount of block funding I managed as PI.

| | |
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| NCSA (Department of Homeland Security) , \$6.5 million for 2006–11. | Co-PI |
| NIST (Department of Commerce) , \$3 million for 2006–08. | PI |

David Kotz (Funding)

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BJA (Department of Justice), \$5 million for 2005–07.

PI

HSARPA (Department of Homeland Security), \$51 million for 2000–06.

2004–06 PI

Total \$65.5 million.

Publications

Readers of this vita in electronic PDF format can click the links below. Others may find those papers at URL <http://www.cs.dartmouth.edu/~kotz/research/papers.html>. My ORCID is [0000-0001-7411-2783](https://orcid.org/0000-0001-7411-2783); I have research profiles on [Zotero](#), [SCOPUS](#), and [Google Scholar](#).

OVERALL 264 refereed publications, 403 overall as co-author.

- 83 Refereed journal articles (page 11)
- 127 Refereed conference papers (page 18)
- 31 Refereed conference posters and position papers (page 29)
- 20 Invited book chapters (page 31)
 - 1 Dissertations and theses – my own (page 33)
 - 53 Dissertations and theses – my students (page 33)
- 11 Patents (page 36)
 - 3 Patent applications (page 37)
- 8 Software artifacts (page 38)
- 28 Unrefereed papers (page 38)
- 91 Unrefereed technical reports (page 40)

Student theses are not included in my co-authorship count.

REFEREED JOURNAL ARTICLES (83) in reverse-chronological order

All are peer-reviewed.

- RJ1.** José Camacho, Katarzyna Wasielewska, Rasmus Bro, and David Kotz. **Interpretable Learning in Multivariate Big Data Analysis for Network Monitoring.** *IEEE Transactions on Network and Service Management*. IEEE, February 2024. doi:10.1109/TNSM.2024.3368501. Accepted for publication. Revision of **TR1**. [[Details](#)]
- RJ2.** Cynthia I. Campbell, Ching-Hua Chen, Sara R. Adams, Asma Asyied, Ninad R. Athale, Monique B. Does, Saeed Hassanpour, Emily Hichborn, Melanie Jackson-Morris, Nicholas C. Jacobson, Heather K. Jones, David Kotz, Chantal A. Lambert-Harris, Zhiguo Li, Bethany McLeman, Varun Mishra, Catherine Stanger, Geetha Subramaniam, Weiyi Wu, Christopher Zegers, and Lisa A. Marsch. **Patient Engagement in a Multimodal Digital Phenotyping Study of Opioid Use Disorder.** *Journal of Medical Internet Research (JMIR)*, volume 25, article e45556, 14 pages. JMIR Publications, June 2023. doi:10.2196/45556. PMID: 37310787. [[Details](#)]
- RJ3.** Varun Mishra, Florian Künzler, Jan-Niklas Kramer, Elgar Fleisch, Tobias Kowatsch, and David Kotz. **Detecting Receptivity for mHealth Interventions in the Natural Environment.** *GetMobile*, volume 27, number 2, pages 23–28. ACM, June 2023. doi:10.1145/3614214.3614221. A 'highlight' of the full IMWUT paper. Revision of **RJ11**. [[Details](#)]
- RJ4.** Kofi Odame, Maria Nyamukuru, Mohsen Shahghasemi, Shengjie Bi, and David Kotz. **Analog Gated Recurrent Neural Network for Detecting Chewing Events.** *IEEE Transactions on Biomedical Circuits and Systems*, volume 16, number 6, pages 1106–1115. IEEE, December 2022. doi:10.1109/TBCAS.2022.3218889. [[Details](#)]
- RJ5.** Spangler, Hillary B., Driesse, Tiffany M., Lynch, David H., Liang, Xiaohui, Roth, Robert M., Kotz, David, Fortuna, Karen, and Batsis, John A. **Privacy Concerns of Older Adults Using Voice Assistant Systems.** *Journal of the American Geriatrics Society*, volume 70, number 12, pages 3643–3647. Wiley, August 26, 2022. doi:10.1111/jgs.18009. [[Details](#)]
- RJ6.** George Boateng, Curtis L. Petersen, David Kotz, Karen L. Fortuna, Rebecca Masutani, and John A. Batsis. **A Smartwatch Step-Counting App for Older Adults: Development and Evaluation Study.** *JMIR Aging*, volume 5, number 3, article e33845, 11 pages. JMIR Publications, August 10, 2022. doi:10.2196/33845. [[Details](#)]

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- RC89.** Jason Liu, Yougu Yuan, David M. Nicol, Robert S. Gray, Calvin C. Newport, David Kotz, and Luiz Felipe Perrone. **Simulation Validation Using Direct Execution of Wireless Ad-Hoc Routing Protocols.** *Proceedings of the Workshop on Parallel and Distributed Simulation (PADS)*, pages 7–16. ACM, May 2004. doi:10.1109/PADS.2004.1301280. Nominated for Best Paper award. Later revised as [RJ64](#). Acceptance rate 54%. [[Details](#)]
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- RC91.** Guanling Chen and David Kotz. **Context-Sensitive Resource Discovery.** *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pages 243–252. IEEE, March 2003. doi:10.1109/PERCOM.2003.1192747. Acceptance rate 32%. [[Details](#)]
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- RC98.** Ron Oldfield and David Kotz. **Armada: A parallel file system for computational grids.** *Proceedings of the IEEE/ACM International Symposium on Cluster Computing and the Grid (ccGrid)*, pages 194–201. IEEE, Brisbane, Australia, May 2001. doi:10.1109/CCGRID.2001.923193. Acceptance rate 38%. [[Details](#)]
- RC99.** Jon Howell and David Kotz. **End-to-end authorization.** *Proceedings of the Symposium on Operating Systems Design and Implementation (OSDI)*, pages 151–164. USENIX Association, October 2000. Acceptance rate 22%. [[Details](#)]
- RC100.** Jon Howell and David Kotz. **A Formal Semantics for SPKI.** *Proceedings of the European Symposium on Research in Computer Security (ESORICS)*, volume 1895 in Lecture Notes in Computer Science, pages 140–158. Springer-Verlag, October 2000. doi:10.1007/10722599_9. Revision of [TR52](#). Acceptance rate 25%. [[Details](#)]
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- RC102.** Jonathan Bredin, David Kotz, and Daniela Rus. **Trading Risk in Mobile-Agent Computational Markets.** *International Conference on Computing in Economics and Finance*, 10 pages. Kluwer Academic Publishers, Barcelona, Spain, July 2000. No proceedings available. [[Details](#)]
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- RC106.** Jonathan Bredin, David Kotz, and Daniela Rus. **Market-based Resource Control for Mobile Agents.** *Proceedings of the International Conference on Autonomous Agents*, pages 197–204. ACM, May 1998. doi:10.1145/280765.280801. Revision of [TR60](#). Acceptance rate 34%. [[Details](#)]
- RC107.** Daniela Rus, Robert Gray, and David Kotz. **Transportable Information Agents.** *Proceedings of the International Conference on Autonomous Agents*, pages 228–236. ACM, February 1997. doi:10.1145/267658.267721. Revision of [U17](#). Later revised as [RJ73](#). Acceptance rate 38%. [[Details](#)]
- RC108.** David Kotz, Robert Gray, and Daniela Rus. **Transportable Agents Support Worldwide Applications.** *Proceedings of the ACM SIGOPS European Workshop*, pages 41–48. ACM, September 1996. doi:10.1145/504450.504458. Acceptance rate 28%. [[Details](#)]
- RC109.** Apratim Purakayastha, Carla Schlatter Ellis, and David Kotz. **ENWRICH: A Compute-Processor Write Caching Scheme for Parallel File Systems.** *Proceedings of the Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 55–68. ACM, Philadelphia, May 1996. doi:10.1145/236017.236034. Revision of [TR69](#). Acceptance rate 37%. [[Details](#)]
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- RC112.** David Kotz. **Expanding the Potential for Disk-Directed I/O.** *Proceedings of the IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 490–495. IEEE, San Antonio, TX, October 1995. doi:10.1109/SPDP.1995.530723. Revision of [TR72](#). Acceptance rate 40%. [[Details](#)]
- RC113.** David Kotz. **Disk-directed I/O for an Out-of-core Computation.** *Proceedings of the IEEE International Symposium on High Performance Distributed Computing (HPDC)*, pages 159–166. IEEE, August 1995. doi:10.1109/HPDC.1995.518706. Revision of [TR74](#). Acceptance rate 43%. [[Details](#)]
- RC114.** Apratim Purakayastha, Carla Schlatter Ellis, David Kotz, Nils Nieuwejaar, and Michael Best. **Characterizing Parallel File-Access Patterns on a Large-Scale Multiprocessor.** *Proceedings of the International Parallel Processing Symposium (IPPS)*, pages 165–172. IEEE, April 1995. doi:10.1109/IPPS.1995.395928. Revision of [TR76](#). Later revised as [TR71](#). Acceptance rate 40%. [[Details](#)]
- RC115.** David Kotz and Ting Cai. **Exploring the use of I/O Nodes for Computation in a MIMD Multiprocessor.** *Proceedings of the IPPS Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 78–89. ACM, April 1995. Revision of [TR77](#). Acceptance rate 33%. [[Details](#)]

- RC116.** Nils Nieuwejaar and David Kotz. **Low-level Interfaces for High-level Parallel I/O.** *Proceedings of the IPPS Workshop on Input/Output in Parallel and Distributed Systems (IOPADS)*, pages 47–62. April 1995. Identical to [TR73](#). Later revised as [IB20](#). Acceptance rate 33%. [[Details](#)]
- RC117.** David Kotz. **A Data-Parallel Programming Library for Education (DAPPLE).** *Proceedings of the SIGCSE Technical Symposium on Computer Science Education*, pages 76–81. ACM, March 1995. doi:10.1145/199688.199730. Revision of [TR75](#). Later revised as [RJ77](#). Acceptance rate 35%. [[Details](#)]
- RC118.** David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** *Proceedings of the Symposium on Operating Systems Design and Implementation (OSDI)*, pages 61–74. USENIX Association, November 1994. Updated as Dartmouth TR PCS-TR94-226 on November 8, 1994. Honorable mention as “Best Paper”. Later revised as [TR79](#). Acceptance rate 18%. [[Details](#)]
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- RC120.** David Kotz and Preston Crow. **The Expected Lifetime of “Single-Address-Space” Operating Systems.** *Proceedings of the ACM SIGMETRICS Conference on Measurement and Modeling of Computer Systems*, pages 161–170. ACM, May 1994. doi:10.1145/183019.183036. Revision of [TR82](#). Later revised as [RJ79](#). Acceptance rate 23%. [[Details](#)]
- RC121.** Thomas H. Cormen and David Kotz. **Integrating Theory and Practice in Parallel File Systems.** *Proceedings of the Dartmouth Institute for Advanced Graduate Studies (DAGS)*, pages 64–74. Dartmouth Institute for Advanced Graduate Studies (DAGS), Dartmouth College, Hanover, NH, June 1993. Revised as Dartmouth PCS-TR93-188 on 9/20/94. Later revised as [TR84](#). Acceptance rate 64%. [[Details](#)]
- RC122.** Owen Astrachan, Vivek Khera, and David Kotz. **The Internet Programming Contest: A Report and Philosophy.** *Proceedings of the SIGCSE Technical Symposium on Computer Science Education*, pages 48–52. ACM, February 1993. doi:10.1145/169070.169105. Revision of [TR87](#). Acceptance rate 29%. [[Details](#)]
- RC123.** David Kotz. **Multiprocessor File System Interfaces.** *Proceedings of the International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 194–201. IEEE, January 1993. doi:10.1109/PDIS.1993.253093. Revision of [TR85](#). Acceptance rate 18%. [[Details](#)]
- RC124.** David Kotz and Carla Schlatter Ellis. **Practical Prefetching Techniques for Parallel File Systems.** *Proceedings of the International Conference on Parallel and Distributed Information Systems (PDIS)*, pages 182–189. IEEE, December 1991. doi:10.1109/PDIS.1991.183101. Revision of [D1](#). Later revised as [RJ81](#). Acceptance rate 16%. [[Details](#)]
- RC125.** David Kotz and Carla Schlatter Ellis. **Caching and Writeback Policies in Parallel File Systems.** *Proceedings of the IEEE Symposium on Parallel and Distributed Processing (SPDP)*, pages 60–67. IEEE, December 1991. doi:10.1109/SPDP.1991.218296. Revision of [D1](#). Later revised as [RJ82](#). Acceptance rate 33%. [[Details](#)]
- RC126.** Carla Schlatter Ellis and David Kotz. **Prefetching in File Systems for MIMD Multiprocessors.** *Proceedings of the International Conference on Parallel Processing (ICPP)*, volume 1, pages 306–314. Pennsylvania State University Press, St. Charles, IL, August 1989. ISBN: 0-271-00686-2. Revision of [TR88](#). Later revised as [RJ83](#). Acceptance rate 25%. [[Details](#)]
- RC127.** David Kotz and Carla Ellis. **Evaluation of Concurrent Pools.** *Proceedings of the International Conference on Distributed Computer Systems (ICDCS)*, pages 378–385. IEEE, June 1989. doi:10.1109/ICDCS.1989.37968. Revision of [TR90](#). Acceptance rate 33%. [[Details](#)]

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These are short papers, poster abstracts, or position papers. (Bold labels indicates peer review.)

- RP1.** Eduardo Antonio Mañas-Martínez, Elena Cabrera, Katarzyna Wasielewska, David Kotz, and José Camacho. **Mining social interactions in connection traces of a campus Wi-Fi network.** *Proceedings of the SIGCOMM Poster and Demo Sessions*, 3 pages, pages 6–8. ACM, August 2021. doi:10.1145/3472716.3472844. Acceptance rate 54%. [[Details](#)]
- RP2.** Sougata Sen, Varun Mishra, and David Kotz. **Using vibrations from a SmartRing as an out-of-band channel for sharing secret keys.** *Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)*, pages 198–201. ACM, September 2019. doi:10.1145/3341162.3343818. [[Details](#)]
- RP3.** Timothy J. Pierson, Travis Peters, Ronald Peterson, and David Kotz. **Poster: Proximity Detection with Single-Antenna IoT Devices.** *Proceedings of the ACM International Conference on Mobile Computing and Networking (MobiCom)*, pages 663–665. ACM, October 2018. doi:10.1145/3241539.3267751. Best poster award. Later revised as **RC16**. Acceptance rate 50%. [[Details](#)]
- RP4.** Timothy J. Pierson, Ronald Peterson, and David Kotz. **Secure Information Transfer Between Nearby Wireless Devices.** *Proceedings of the Mobicom S3 workshop*, pages 11–13. ACM, October 2017. doi:10.1145/3131348.3131355. Acceptance rate 100%. [[Details](#)]
- RP5.** Shengjie Bi, Ellen Davenport, Jun Gong, Ronald Peterson, Kevin Storer, Tao Wang, Kelly Caine, Ryan Halter, David Kotz, Kofi Odame, Jacob Sorber, and Xing-Dong Yang. **Poster: Auracle — A Wearable Device for Detecting and Monitoring Eating Behavior.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 176. ACM, June 2017. doi:10.1145/3081333.3089320. [[Details](#)]
- RP6.** Taylor Hardin, Josiah Hester, Patrick Proctor, Jacob Sorber, and David Kotz. **Poster: Memory Protection in Ultra-Low-Power Multi-Application Wearables.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 170. ACM, June 2017. doi:10.1145/3081333.3089314. [[Details](#)]
- RP7.** Rui Liu, Cory Cornelius, Reza Rawassizadeh, Ron Peterson, and David Kotz. **Poster: Vocal Resonance as a Passive Biometric.** *Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 160. ACM, June 2017. doi:10.1145/3081333.3089304. [[Details](#)]
- RP8.** Josiah Hester, Travis Peters, Tianlong Yun, Ronald Peterson, Joseph Skinner, Bhargav Golla, Kevin Storer, Steven Hearndon, Sarah Lord, Ryan Halter, David Kotz, and Jacob Sorber. **The Amulet Wearable Platform: Demo Abstract.** *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys)*, pages 290–291. ACM, November 2016. doi:10.1145/2994551.2996527. [[Details](#)]
- RP9.** Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Demo: Wanda, securely introducing mobile devices.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, page 113. ACM, June 2016. doi:10.1145/2938559.2938581. [[Details](#)]
- RP10.** Xiaohui Liang and David Kotz. **Securely Connecting Wearable Health Devices to External Displays.** *Proceedings of the USENIX Summit on Health Information Technologies*. USENIX Association, August 2014. No paper – workshop presentation only. [[Details](#)]
- RP11.** Andrés Molina-Markham, Ronald A. Peterson, Joseph Skinner, Ryan J. Halter, Jacob Sorber, and David Kotz. **Poster: Enabling Computational Jewelry for mHealth Applications.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 374–375. ACM, June 2014. doi:10.1145/2594368.2601454. [[Details](#)]
- RP12.** Aarathi Prasad, Xiaohui Liang, and David Kotz. **Poster: Balancing Disclosure and Utility of Personal Information.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 380–381. ACM, June 2014. doi:10.1145/2594368.2601448. [[Details](#)]

- RP13.** Aarathi Prasad, Ronald Peterson, Jacob Sorber, and David Kotz. **A Provenance Framework for mHealth.** *Proceedings of the Workshop for Mobile Systems, Applications, and Services for Healthcare (mHealthSys) Poster Track*, article 9, 2 pages. ACM, November 2012. doi:10.1145/2396276.2396287. [[Details](#)]
- RP14.** Cory Cornelius, Zachary Marois, Jacob Sorber, Ron Peterson, Shirang Mare, and David Kotz. **Passive Biometrics for Pervasive Wearable Devices (Poster paper).** *Proceedings of the Workshop on Mobile Computing Systems and Applications (HotMobile)*, 1 page. ACM, February 2012. [[Details](#)]
- RP15.** Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. **Exposing privacy concerns in mHealth.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2011. Position paper. Acceptance rate 34%. [[Details](#)]
- RP16.** Jacob Sorber, Minh Shin, Ron Peterson, and David Kotz. **Poster: Practical Trusted Computing for mHealth Sensing.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, pages 405–406. ACM, June 2011. doi:10.1145/1999995.2000058. [[Details](#)]
- RP17.** Keren Tan, Guanhua Yan, Jihwang Yeo, and David Kotz. **A Correlation Attack Against User Mobility Privacy in a Large-scale WLAN network.** *Proceedings of the ACM MobiCom S3 workshop*, pages 33–35. ACM, September 2010. doi:10.1145/1860039.1860050. Later revised as [RC52](#). [[Details](#)]
- RP18.** Cory Cornelius and David Kotz. **On Usable Authentication for Wireless Body Area Networks.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [[Details](#)]
- RP19.** Shirang Mare and David Kotz. **Is Bluetooth the right technology for mHealth?** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [[Details](#)]
- RP20.** Aarathi Prasad and David Kotz. **Can I access your Data? Privacy Management in mHealth.** *Proceedings of the USENIX Workshop on Health Security (HealthSec)*, 2 pages. USENIX Association, August 2010. Position paper. Acceptance rate 49%. [[Details](#)]
- RP21.** Janani Sriram, Minh Shin, Tanzeem Choudhury, and David Kotz. **Activity-aware ECG-based patient authentication for remote health monitoring.** *Proceedings of the International Conference on Multimodal Interfaces and Workshop on Machine Learning for Multi-modal Interaction (ICMI-MLMI)*, pages 297–304. ACM, November 2009. doi:10.1145/1647314.1647378. Acceptance rate 36%. [[Details](#)]
- RP22.** Sergey Bratus, Joshua Brody, David Kotz, and Anna Shubina. **Streaming Estimation of Information-theoretic Metrics for Anomaly Detection (Extended Abstract).** *Proceedings of the International Symposium on Recent Advances in Intrusion Detection— Posters*, volume 5230 in Lecture Notes in Computer Science, pages 412–414. Springer-Verlag, Cambridge, MA, September 2008. doi:10.1007/978-3-540-87403-4_32. Acceptance rate 41%. [[Details](#)]
- RP23.** Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minh Shin, and Patrick Tsang. **Poster Abstract: Reliable People-Centric Sensing with Unreliable Voluntary Carriers.** *Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys)*, 1 page. ACM, June 2008. [[Details](#)]
- RP24.** Libo Song, Udayan Deshpande, Ulaş C. Kozat, David Kotz, and Ravi Jain. **MobiCom Poster Abstract: Bandwidth Reservation using WLAN Handoff Prediction.** *ACM SIGMOBILE Mobile Computing and Communication Review*, volume 10, number 4, pages 22–23. ACM, October 2006. doi:10.1145/1215976.1215987. Poster presented at Mobicom 2005. [[Details](#)]
- RP25.** Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, and Daniela Rus. **Kerf: Machine Learning to Aid Intrusion Analysts.** *Proceedings of the USENIX Security Symposium*, 1 page. USENIX Association, August 2004. Work-in-progress report. [[Details](#)]
- RP26.** Jue Wang, Guanling Chen, and David Kotz. **A sensor-fusion approach for meeting detection.** *Proceedings of the MobiSys 2004 Workshop on Context Awareness*, 7 pages. ACM, June 2004. Revision of [TR32](#). Acceptance rate 71%. [[Details](#)]

- RP27.** Guanling Chen and David Kotz. **Dependency management in distributed settings (Poster Abstract).** *Proceedings of the International Conference on Autonomic Computing (ICAC)*, pages 272–273. IEEE, May 2004. doi:10.1109/ICAC.2004.1301375. Revision of **TR30**. Acceptance rate 48%. [[Details](#)]
- RP28.** Libo Song, David Kotz, Ravi Jain, and Xiaoning He. **MobiCom Poster: Evaluating location predictors with extensive Wi-Fi mobility data.** *ACM SIGMOBILE Mobile Computing and Communication Review*, volume 7, number 4, pages 64–65. ACM, October 2003. doi:10.1145/965732.965747. Later revised as **RC90**. Acceptance rate 23%. [[Details](#)]
- RP29.** Javed Aslam, Sergey Bratus, David Kotz, Ron Peterson, Daniela Rus, and Brett Tofel. **The Kerf toolkit for intrusion analysis (Poster abstract).** *Proceedings of the IEEE Workshop on Information Assurance*, pages 301–303. IEEE, West Point, NY, June 2003. doi:10.1109/SMCSIA.2003.1232441. Later revised as **RJ67**. [[Details](#)]
- RP30.** Guanling Chen and David Kotz. **SOLAR: Towards a Flexible and Scalable Data-Fusion Infrastructure for Ubiquitous Computing.** *Proceedings of the UbiTools workshop at UbiComp 2001*, 4 pages. October 2001. Acceptance rate 84%. [[Details](#)]
- RP31.** Jon Howell and David Kotz. **Restricted delegation: seamlessly spanning administrative boundaries.** *ACM Operating Systems Review*, volume 34, number 2, pages 38–39. ACM, April 2000. doi:10.1145/346152.346268. [[Details](#)]

INVITED BOOK CHAPTERS (20) in reverse-chronological order

Most, but not all, of these papers were peer-reviewed. (Bold labels indicates peer review.)

- IB1.** Aarathi Prasad, Jacob Sorber, Timothy Stablein, Denise Anthony, and David Kotz. **Understanding User Privacy Preferences for mHealth Data Sharing.** *MHealth: Multidisciplinary Verticals*, chapter 30, pages 545–570. Edited by Sasan Adibi. Taylor & Francis (CRC Press), November 2014. doi:10.1201/b17724-34. ISBN13: 978-1-4822-1480-2. Revision of **RC43**. [[Details](#)]
- IB2.** Libo Song and David F. Kotz. **Routing in Mobile Opportunistic Networks.** *Mobile Opportunistic Networks*, chapter 1, pages 1–24. Edited by Mieso K. Denko. Taylor & Francis, 2011. ISBN13: 978-1-4200-8813-7. Revision of **RC70**. [[Details](#)]
- IB3.** Keren Tan, Jihwang Yeo, Michael E. Locasto, and David Kotz. **Catch, Clean, and Release: A Survey of Obstacles and Opportunities for Network Trace Sanitization.** *Privacy-Aware Knowledge Discovery: Novel Applications and New Techniques*, chapter 5, pages 111–141. Edited by Francesco Bonchi and Elena Ferrari. Chapman and Hall/CRC Press, January 2011. ISBN13: 9781439803653. [[Details](#)]
- IB4.** Kazuhiro Minami and David Kotz. **Distributed proof systems for cross-domain authorization.** *Information Assurance, Security and Privacy Services*, chapter 1. Edited by H. Raghav Rao and Shambhu Upadhyaya. Volume 4 in Handbooks in Information Systems, Emerald Group Publishing Limited, 2009. ISBN13: 9781848551947. [[Details](#)]
- IB5.** Janani Sriram, Minh Shin, David Kotz, Anand Rajan, Manoj Sastry, and Mark Yarvis. **Challenges in Data Quality Assurance in Pervasive Health Monitoring Systems.** *Future of Trust in Computing*, pages 129–142. Edited by David Gawrock, Helmut Reimer, Ahmad-Reza Sadeghi, and Claire Vishik. Vieweg+Teubner Verlag, July 2009. doi:10.1007/978-3-8348-9324-6_14. ISBN13: 978-3-8348-9324-6. [[Details](#)]
- IB6.** Guanling Chen, Kazuhiro Minami, and David Kotz. **Naming and Discovery in Mobile Systems.** *The Handbook of Mobile Middleware*, chapter 16, pages 387–407. Edited by Paolo Bellavista and Antonio Corradi. John Wiley & Sons, 2007. ISBN13: 9780367390105. [[Details](#)]
- IB7.** Tristan Henderson and David Kotz. **Measuring Wireless LANs.** *Mobile, Wireless and Sensor Networks: Technology, Applications and Future Directions*, chapter 1, pages 5–27. Edited by Rajeev Shorey, Akkihebbal L. Ananda, Mun Choon Chan, and Wei Tsang Ooi. John Wiley & Sons, New York, NY, 2006. doi:10.1002/0471755591.ch1. ISBN13: 9780471755593. [[Details](#)]

- IB8.** Robert S. Gray, George Cybenko, David Kotz, and Daniela Rus. **Mobile agents: Motivations and State of the Art.** *Handbook of Agent Technology*. Edited by Jeffrey Bradshaw. AAAI/MIT Press, 2002. Accepted for publication, but the book never published. Draft available as Technical Report TR2000-365, Department of Computer Science, Dartmouth College. Revision of [TR51](#). [[Details](#)]
- IB9.** Jonathan Bredin, David Kotz, Daniela Rus, Rajiv T. Maheswaran, Çağrı Imer, and Tamer Başar. **A Market-Based Model for Resource Allocation in Agent Systems.** *Coordination of Internet Agents Models, Technologies, and Applications*, chapter 17, pages 426–441. Edited by Franco Zambonelli. Springer-Verlag, 2001. ISBN: 3-540-41613-7. [[Details](#)]
- IB10.** David Kotz. **Disk-directed I/O for MIMD Multiprocessors.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 35, pages 513–535. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, September 2001. ISBN13: 978-0-471-20809-9. Identical to [RJ76](#). [[Details](#)]
- IB11.** David Kotz and Carla Schlatter Ellis. **Practical Prefetching Techniques for Multiprocessor File Systems.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 17, pages 245–258. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, New York, NY, September 2001. ISBN13: 978-0-471-20809-9. Identical to [RJ81](#). [[Details](#)]
- IB12.** Ron Oldfield and David Kotz. **Scientific Applications using Parallel I/O.** *High Performance Mass Storage and Parallel I/O: Technologies and Applications*, chapter 45, pages 655–666. Edited by Hai Jin, Toni Cortes, and Rajkumar Buyya. Wiley-IEEE Press, September 2001. ISBN13: 978-0-471-20809-9. Revision of [TR57](#). [[Details](#)]
- IB13.** Brian Brewington, Robert Gray, Katsuhiro Moizumi, David Kotz, George Cybenko, and Daniela Rus. **Mobile Agents for Distributed Information Retrieval.** *Intelligent Information Agents*, chapter 15, pages 355–395. Edited by Matthias Klusch. Springer-Verlag, 1999. ISBN: 3-540-65112-8. [[Details](#)]
- IB14.** David Kotz and Ravi Jain. **I/O in Parallel and Distributed Systems.** *Encyclopedia of Computer Science and Technology*, pages 141–154. Edited by Allen Kent and James G. Williams. Volume 40, Marcel Dekker, Inc., 1999. ISBN13: 9780824722937. Supplement 25. [[Details](#)]
- IB15.** David Kotz, Robert Gray, Saurab Nog, Daniela Rus, Sumit Chawla, and George Cybenko. **Mobile Agents for Mobile Computing.** *Mobility: Processes, Computers, and Agents*, chapter 14.3, pages 513–523. Edited by Dejan S. Milošević, Frederick Douglass, and Richard G. Wheeler. Addison Wesley and ACM Press, April 1999. ISBN13: 9780201379280. Identical to [RJ74](#). [[Details](#)]
- IB16.** Robert S. Gray, David Kotz, George Cybenko, and Daniela Rus. **D’Agents: Security in a multiple-language, mobile-agent system.** *Mobile Agents and Security*, chapter 9, pages 154–187. Edited by Giovanni Vigna. Volume 1419 in Lecture Notes in Computer Science, Springer-Verlag, 1998. doi:10.1007/3-540-68671-1. ISBN13: 978-3-540-68671-2. [[Details](#)]
- IB17.** Daniela Rus, Robert Gray, and David Kotz. **Transportable Information Agents.** *Readings in Agents*, chapter 3.3, pages 283–291. Edited by Michael Huhns and Munindar Singh. Morgan Kaufmann Publishers, San Francisco, October 1997. doi:10.5555/284860.284912. ISBN13: 978-1-55860-495-7. Identical to [RJ73](#). [[Details](#)]
- IB18.** Robert Gray, David Kotz, George Cybenko, and Daniela Rus. **Agent Tcl.** *Mobile Agents: Explanations and Examples*, chapter 4, pages 58–95. Edited by William Cockayne and Michael Zyda. Manning Publishing, March 1997. ISBN13: 9780138582425. Imprints by Manning Publishing and Prentice Hall. [[Details](#)]
- IB19.** David Kotz. **Introduction to Multiprocessor I/O Architecture.** *Input/Output in Parallel and Distributed Computer Systems*, chapter 4, pages 97–123. Edited by Ravi Jain, John Werth, and James C. Browne. Volume 362 in The Kluwer International Series in Engineering and Computer Science, Kluwer Academic Publishers, 1996. ISBN13: 978-1-4613-1401-1. [[Details](#)]

- IB20.** Nils Nieuwejaar and David Kotz. **Low-level Interfaces for High-level Parallel I/O.** *Input/Output in Parallel and Distributed Computer Systems*, chapter 9, pages 205–223. Edited by Ravi Jain, John Werth, and James C. Browne. Volume 362 in The Kluwer International Series in Engineering and Computer Science, Kluwer Academic Publishers, 1996. ISBN13: 978-1-4613-1401-1. Revision of **RC116**. [[Details](#)]

DISSERTATIONS AND THESES – MY OWN (1) in reverse-chronological order

- D1.** David Kotz. **Prefetching and Caching Techniques in File Systems for MIMD Multiprocessors.** PhD thesis, Duke University, April 1991. Available as technical report CS-1991-016. [[Details](#)]

DISSERTATIONS AND THESES – MY STUDENTS (53) in reverse-chronological order

Although my student’s theses are not my publications, I list them as a representation of my role as advisor. They are not included in my publication count.

- T1. Adam Vandenbussche. **TorSH: Obfuscating consumer Internet-of-Things traffic with a collaborative smart-home router network.** June 2022. Undergraduate Thesis. [[Details](#)]
- T2. Taylor Hardin. **Information Provenance for Mobile Health Data.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2022. [[Details](#)]
- T3. Namya Malik. **SPLICEcube Architecture: An Extensible Wi-Fi Monitoring Architecture for Smart-Home Networks.** Master’s thesis, Dartmouth Computer Science, Hanover, NH, May 2022. [[Details](#)]
- T4. Varun Mishra. **Towards Effective Delivery of Digital Interventions for Mental and Behavioral Health.** PhD thesis, Dartmouth Computer Science, Hanover, NH, September 2021. [[Details](#)]
- T5. Paul Gralla. **An inside vs. outside classification system for Wi-Fi IoT devices.** June 2021. Undergraduate Thesis. [[Details](#)]
- T6. Sarah Hong. **Exploring the Relationship Between Intrinsic Motivation and Receptivity to mHealth Interventions.** June 2021. Undergraduate Thesis. [[Details](#)]
- T7. Fedor Myagkov. **Classifying Common Knee Rehabilitation Exercise Mistakes Using IMU Data.** June 2021. Undergraduate Thesis. [[Details](#)]
- T8. Shengjie Bi. **Detection of health-related behaviours using head-mounted devices.** PhD thesis, Dartmouth Computer Science, Hanover, NH, May 2021. PhD Dissertation. [[Details](#)]
- T9. Travis Peters. **Trustworthy Wireless Personal Area Networks.** PhD thesis, Dartmouth Computer Science, Hanover, NH, August 2020. Available as Dartmouth Computer Science Technical Report TR2020-878. [[Details](#)]
- T10. Timothy J. Pierson. **Secure Short-range Communications.** PhD thesis, Dartmouth Computer Science, Hanover, NH, June 2018. Available as Dartmouth Computer Science Technical Report TR2018-845. [[Details](#)]
- T11. Emily Greene. **ShareABEL: Secure Sharing of mHealth Data through Cryptographically-Enforced Access Control.** Technical Report number TR2017-827, Dartmouth College, Computer Science, Hanover, NH, July 2017. Senior Honors Thesis. [[Details](#)]
- T12. George G. Boateng. **ActivityAware: Wearable System for Real-Time Physical Activity Monitoring among the Elderly.** Master’s thesis, Dartmouth Computer Science, Hanover, NH, May 2017. Available as Dartmouth Computer Science Technical Report TR2017-824. [[Details](#)]
- T13. David B. Harmon. **Cryptographic transfer of sensor data from the Amulet to a smartphone.** Technical Report number TR2017-826, Dartmouth College, Computer Science, Hanover, NH, May 2017. Senior Honors Thesis. [[Details](#)]

- T14. George G. Boateng. **StressAware: App for Continuously Measuring and Monitoring Stress Levels in Real Time on the Amulet Wearable Device.** Technical Report number TR2016-802, Dartmouth Computer Science, Hanover, NH, May 2016. Senior Honors Thesis. [[Details](#)]
- T15. Anna J. Knowles. **Integrating Bluetooth Low Energy Peripherals with the Amulet.** Technical Report number TR2016-807, Dartmouth Computer Science, Hanover, NH, May 2016. Senior Honors Thesis. [[Details](#)]
- T16. Shrirang Mare. **Seamless Authentication for Ubiquitous Devices.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-793. [[Details](#)]
- T17. Aarathi Prasad. **Privacy-preserving controls for sharing mHealth data.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2016. Available as Dartmouth Computer Science Technical Report TR2016-794. [[Details](#)]
- T18. Bingyue Wang. **Learning Device Usage in Context: A Continuous and Hierarchical Smartphone Authentication Scheme.** Technical Report number TR2016-790, Dartmouth Computer Science, Hanover, NH, March 2016. Senior Honors Thesis. [[Details](#)]
- T19. Rima Narayana Murthy. **mCollector: Sensor-enabled health-data collection system for rural areas in the developing world.** Master's thesis, Dartmouth College Computer Science, Hanover, NH, August 2014. Available as Dartmouth Technical Report TR2015-788. [[Details](#)]
- T20. Cory T. Cornelius. **Usable Security for Wireless Body-Area Networks.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, September 2013. Available as Dartmouth Computer Science Technical Report TR2013-741. [[Details](#)]
- T21. Shloka R. Kini. **Please Take My Survey: Compliance with smartphone-based EMA/ESM studies.** Technical Report number TR2013-734, Dartmouth Computer Science, Hanover, NH, May 2013. Senior Honors Thesis. [[Details](#)]
- T22. Emma N. Smithayer. **Sensor-based system for verifying blood-pressure measurement position.** Technical Report number TR2012-720, Dartmouth Computer Science, Hanover, NH, June 2012. Senior Honors Thesis. [[Details](#)]
- T23. Aarathi Prasad. **Exposing Privacy Concerns in mHealth Data Sharing.** Master's thesis, Dartmouth College Computer Science, Hanover, NH, February 2012. Available as Technical Report TR2012-711. Later revised as [RC43](#). [[Details](#)]
- T24. Keren Tan. **Large-scale Wireless Local-area Network Measurement and Privacy Analysis.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, August 2011. Available as Dartmouth Computer Science Technical Report TR2011-703. [[Details](#)]
- T25. Phillip A. Fazio. **Effects of network trace sampling methods on privacy and utility metrics.** Technical Report number TR2011-697, Dartmouth College, Computer Science, Hanover, NH, June 2011. Senior Honors Thesis. [[Details](#)]
- T26. Jeffrey Fielding. **Linkability in Activity Inference Data Sets.** Technical Report number TR2008-623, Dartmouth Computer Science, Hanover, NH, June 2008. Available as Dartmouth Computer Science Technical Report TR2008-623. Senior Honors Thesis. Advisors: Tanzeem Choudhury and David Kotz. [[Details](#)]
- T27. Udayan Deshpande. **A Dynamically Refocusable Sampling Infrastructure for 802.11 Networks.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-620. [[Details](#)]
- T28. Ming Li. **Group-Aware Stream Filtering.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-621. [[Details](#)]

- T29. Soumendra Nanda. **Mesh-Mon: a Monitoring and Management System for Wireless Mesh Networks.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2008. Available as Dartmouth Computer Science Technical Report TR2008-619. [[Details](#)]
- T30. Libo Song. **Evaluating Mobility Predictors in Wireless Networks for Improving Handoff and Opportunistic Routing.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, January 2008. Available as Dartmouth Computer Science Technical Report TR2008-611. [[Details](#)]
- T31. Kazuhiro Minami. **Secure Context-sensitive Authorization.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, February 2006. Available as Dartmouth Computer Science Technical Report TR2006-571. [[Details](#)]
- T32. Zhenhui Jiang. **A Combined Routing Method for Ad hoc Wireless Networks.** Master's thesis, Dartmouth College Computer Science, Hanover, NH, December 2005. Available as Dartmouth Computer Science Technical Report TR2005-566. [[Details](#)]
- T33. Jue Wang. **Performance Evaluation of a Resource Discovery Service.** Master's thesis, Dartmouth College Computer Science, Hanover, NH, October 2004. Available as Dartmouth Computer Science Technical Report TR2004-513. [[Details](#)]
- T34. Guanling Chen. **Solar: Building A Context Fusion Network for Pervasive Computing.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, August 2004. Available as Dartmouth Computer Science Technical Report TR2004-514. [[Details](#)]
- T35. Calvin Newport. **Simulating mobile ad hoc networks: a quantitative evaluation of common MANET simulation models.** Technical Report number TR2004-504, Dartmouth Computer Science, Hanover, NH, June 2004. Available as Dartmouth Computer Science Technical Report TR2004-504. Senior Honors Thesis. Advisor: David Kotz. [[Details](#)]
- T36. Clara Lee. **Persistence and Prevalence in the Mobility of Dartmouth Wireless Network Users.** Technical Report number TR2003-455, Dartmouth Computer Science, Hanover, NH, May 2003. The data in this paper is highly suspect; see TR2003-480. Available as Dartmouth Computer Science Technical Report TR2003-455. Senior Honors Thesis. Advisor: David Kotz. [[Details](#)]
- T37. Ron Oldfield. **Efficient I/O for Computational Grid Applications.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, May 2003. Available as Dartmouth Computer Science Technical Report TR2003-459. [[Details](#)]
- T38. A. Abram White. **Performance and Interoperability In Solar.** Technical Report number TR2002-427, Dartmouth Computer Science, Hanover, NH, June 2002. Available as Dartmouth Computer Science Technical Report TR2002-427. Senior Honors Thesis. Advisor: David Kotz. See also TR2002-429. [[Details](#)]
- T39. Christopher P. Masone. **Role Definition Language (RDL): A Language to Describe Context-Aware Roles.** Technical Report number TR2002-426, Dartmouth Computer Science, Hanover, NH, May 2002. Available as Dartmouth Computer Science Technical Report TR2002-426. Senior Honors Thesis. Advisor: David Kotz. [[Details](#)]
- T40. Jonathan L. Bredin. **Market-based Control of Mobile-agent Systems.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-408. [[Details](#)]
- T41. Ammar Khalid. **A Directory Infrastructure to Support Mobile Services.** Technical Report number TR2001-391, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-391. Senior Honors Thesis. Advisor: David Kotz. [[Details](#)]
- T42. Arun Mathias. **SmartReminder: A Case Study on Context-Sensitive Applications.** Technical Report number TR2001-392, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-392. Senior Honors Thesis. Advisor: David Kotz. [[Details](#)]

- T43. G. Ayorkor Mills-Tettey. **Mobile Voice Over IP (MVOIP): An Application-level Protocol.** Technical Report number TR2001-390, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-390. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T44. Pablo Stern. **Measuring early usage of Dartmouth's wireless network.** Technical Report number TR2001-393, Dartmouth Computer Science, Hanover, NH, June 2001. Available as Dartmouth Computer Science Technical Report TR2001-393. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T45. John C. Artz. **Personal Radio.** Technical Report number TR2000-372, Dartmouth Computer Science, Hanover, NH, June 2000. Available as Dartmouth Computer Science Technical Report TR2000-372. Senior Honors Thesis. Advisors: David Kotz and Daniela Rus. [\[Details\]](#)
- T46. Jonathan R. Howell. **Naming and sharing resources across administrative boundaries.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, June 2000. Available as Dartmouth Computer Science Technical Reports TR2000-378, 379, and 380. [\[Details\]](#)
- T47. Debbie O. Chyi. **An Infrastructure for a Mobile-Agent System that Provides Personalized Services to Mobile Devices.** Technical Report number TR2000-370, Dartmouth Computer Science, Hanover, NH, May 2000. Available as Dartmouth Computer Science Technical Report TR2000-370. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T48. Nils A. Nieuwejaar. **Galley: A New Parallel File System for Parallel Applications.** PhD thesis, Dartmouth College Computer Science, Hanover, NH, November 1996. Available as Dartmouth Computer Science Technical Report PCS-TR96-300. [\[Details\]](#)
- T49. Scott M. Silver. **Implementation and Analysis of Software Based Fault Isolation.** Technical Report number PCS-TR96-287, Dartmouth Computer Science, Hanover, NH, June 1996. Available as Dartmouth Computer Science Technical Report PCS-TR96-287. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T50. Joel T. Thomas. **The Panda Array I/O Library on the Galley Parallel File System.** Technical Report number PCS-TR96-288, Dartmouth Computer Science, Hanover, NH, June 1996. Available as Dartmouth Computer Science Technical Report PCS-TR96-288. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T51. Kenneth Harker. **TIAS: A Transportable Intelligent Agent System.** Technical Report number PCS-TR95-258, Dartmouth Computer Science, Hanover, NH, June 1995. Available as Dartmouth Computer Science Technical Report PCS-TR95-258. Senior Honors Thesis. Advisor: David Kotz. [\[Details\]](#)
- T52. Song Bac Toh. **Simulation of a Video-on-Demand System.** Technical Report number PCS-TR95-260, Dartmouth Computer Science, Hanover, NH, June 1995. Available as Dartmouth Computer Science Technical Report PCS-TR95-260. Senior Honors Thesis. [\[Details\]](#)
- T53. James Gochee. **SPEDE: Simple Programming Environment for Distributed Execution.** Technical Report number PCS-TR94-218, Dartmouth Computer Science, Hanover, NH, June 1994. Senior Honors Thesis. [\[Details\]](#)

PATENTS (11) in reverse-chronological order

This section lists only issued patents; USPTO review is a form of peer review.

- P1.** Timothy J. Pierson, Ronald Peterson, and David Kotz. **Apparatuses, Methods, and Software For Secure Short-Range Wireless Communication.** U.S. Patent 11,894,920, February 6, 2024. Priority date 2017-09-06; WO Filed 2018-09-06, US Filed 2020-02-26, Continuation of 11,153,026; Issued 2024-02-06. Revision of **P5**. [\[Details\]](#)

- P2.** Timothy J. Pierson, Ronald Peterson, and David F. Kotz. **System and method for proximity detection with single-antenna device.** U.S. Patent 11,871,233; International Patent Application WO2019210201A1, January 9, 2024. Priority date 2018-04-27; Filed 2019-04-26; Published 2021-07-29, Issued 2024-01-09. [[Details](#)]
- P3.** Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Apparatus for securely configuring a target device.** U.S. Patent 11,683,071, June 20, 2023. Continuation of U.S. Patent 10,574,298. Priority date 2015-06-23; Filed 2020-01-20; Allowed 2023-02-10; Issued 2023-06-20. Revision of **P7**. [[Details](#)]
- P4.** Shrirang Mare, David Kotz, and Ronald Peterson. **Effortless authentication for desktop computers using wrist wearable tokens.** U.S. Patent 11,574,039, February 7, 2023. Priority date 2018-07-20; International application Filed 2019-07-19; National stage Filed 2021-01-20; Issued 2023-02-07. [[Details](#)]
- P5.** Timothy J. Pierson, Ronald Peterson, and David Kotz. **Apparatuses, Methods, and Software For Secure Short-Range Wireless Communication.** U.S. Patent 11,153,026, October 19, 2021. Priority date 2017-09-06; WO Filed 2018-09-06, US Filed 2020-02-26, US amendment filed 2021-01-29; Issued 2021-10-19. Later revised as **P1**. [[Details](#)]
- P6.** Xiaohui Liang, Tianlong Yun, Ron Peterson, and David Kotz. **Secure System For Coupling Wearable Devices To Computerized Devices with Displays.** U.S. Patent 10,581,606, March 3, 2020. Priority date 2014-08-18, Filed 2015-08-18; Issued 2020-03-03. [[Details](#)]
- P7.** Timothy J. Pierson, Xiaohui Liang, Ronald Peterson, and David Kotz. **Apparatus for Securely Configuring A Target Device and Associated Methods.** U.S. Patent 10,574,298, February 25, 2020. Priority date 2015-06-23; Filed 2016-06-23; Issued 2020-02-25. Later revised as **P3**. [[Details](#)]
- P8.** Andrés D. Molina-Markham, Shrirang Mare, Ronald Peterson, and David Kotz. **Continuous seamless mobile device authentication using a separate electronic wearable apparatus.** U.S. Patent 9,961,547, May 1, 2018. Priority date 2016-09-30, Filed 2016-09-30; Issued 2018-05-01. [[Details](#)]
- P9.** David Kotz, Ryan Halter, Cory Cornelius, Jacob Sorber, Minh Shin, Ronald Peterson, Shrirang Mare, Aarathi Prasad, Joseph Skinner, and Andrés Molina-Markham. **Wearable computing device for secure control of physiological sensors and medical devices, with secure storage of medical records, and bioimpedance biometric.** U.S. Patent 9,936,877; International Patent Application WO2013096954A1, April 10, 2018. This patent adds claims to its predecessor; Priority date 2011-12-23; Filed 2017-02-07; Issued 2018-04-10. Revision of **P11**. [[Details](#)]
- P10.** Shrirang Mare, Andrés Molina-Markham, Ronald Peterson, and David Kotz. **System, Method and Authorization Device for Biometric Access Control to Digital Devices.** U.S. Patent 9,832,206; International Patent Application WO2014153528A2, November 28, 2017. Priority date 2013-03-21; Filed 2014-03-21; Issued 2017-11-28. [[Details](#)]
- P11.** David Kotz, Ryan Halter, Cory Cornelius, Jacob Sorber, Minh Shin, Ronald Peterson, Shrirang Mare, Aarathi Prasad, Joseph Skinner, and Andrés Molina-Markham. **Wearable computing device for secure control of physiological sensors and medical devices, with secure storage of medical records, and bioimpedance biometric.** U.S. Patent 9,595,187; International Patent Application WO2013096954A1, March 14, 2017. Priority date 2011-12-23; Filed 2012-12-24; Issued 2017-03-14. Later revised as **P9**. [[Details](#)]

PATENT APPLICATIONS (3) in reverse-chronological order

This section lists patents pending; issued patents are listed in another section.

- PA1.** Taylor Hardin and David Kotz. **Data system with information provenance.** U.S. Patent application US20210273812A1, based on Provisional Patent application 62/984,045, September 2021. Priority date March 2, 2020. Application March 2, 2021. Publication date September 2, 2021. [[Details](#)]

- PA2. Shengjie Bi, Tao Wang, Nicole Tobias, Josephine Nordrum, Robert Halvorsen, Ron Peterson, Kelly Caine, Xing-Dong Yang, Kofi Odame, Ryan Halter, Jacob Sorber, and David Kotz. **System for detecting eating with sensor mounted by the ear**. U.S. Patent Application PCT/US2019/044317; Worldwide Patent Application WO2020028481A9, February 1, 2021. Priority date 2018-07-31; Filed 2019-07-31; Amended 2021-02-01. [\[Details\]](#)
- PA3. David Kotz, Daniela Rus, David Maramros, and John C. Artz. **Methods and apparatus for personalized content presentation**. U.S. Patent Application PCT/US2001/049518; International Patent Application WO2002052374A2, July 4, 2002. Priority date 2000-12-26; Filed 2001-12-26; Published 2002-07-04; Abandoned 2003-06-26. Note third author's name is misspelled; the correct spelling is Marmaros. [\[Details\]](#)

SOFTWARE ARTIFACTS (8) in reverse-chronological order

My research involves building software systems and simulations. I believe that it is important to distribute this software for others to use, either to extend their own research or to better understand my own. The links below generally lead to websites with more information and downloads. The 'Revision' cross-references below refer to the most-relevant paper.

- SW1. David Kotz, Tristan Henderson, Ilya Abyzov, and Jihwang Yeo. **CRAWDAD dataset dartmouth/campus (v. 2009-09-09)**. Available for download on IEEE DataPort, September 2009. doi:10.15783/C7F59T. Revision of [RJ55](#). [\[Details\]](#)
- SW2. David Kotz, Tristan Henderson, and Chris McDonald. **CRAWDAD archive: a Community Resource for Archiving Wireless Data At Dartmouth**. Web site, 2005. Revision of [U6](#). [\[Details\]](#)
- SW3. David Kotz. **Bibliography about Parallel I/O**. BibTeX bibliography, 2000. Original version published 1994. [\[Details\]](#)
- SW4. David Kotz. **STARFISH parallel file-system simulator**. The basis for my research on disk-directed I/O; used by at least two other research groups, October 1996. Third release. Revision of [TR64](#). [\[Details\]](#)
- SW5. David Kotz. **DAta-Parallel Programming Library for Education DAPPLE**. A C++ class library that provides the illusion of data-parallel programming on sequential computers, 1994. Revision of [RJ77](#). [\[Details\]](#)
- SW6. David Kotz. **HP 97560 disk simulation module**. Used in STARFISH and several other research projects, 1994. Revision of [TR80](#). [\[Details\]](#)
- SW7. David Kotz. **RAPID-Transit parallel file-system simulator**. The software basis for my Ph.D dissertation, 1991. Revision of [D1](#). [\[Details\]](#)
- SW8. Thomas Williams, Colin Kelley, and others. **gnuplot plotting software**. Major contributor 1987–91, 1987. [\[Details\]](#)

UNREFEREED PAPERS (28) in reverse-chronological order

Articles published but not peer-reviewed, or unpublished.

- U1. David Kotz, Kevin Fu, Carl Gunter, and Avi Rubin. **Security for Mobile and Cloud Frontiers in Healthcare**. *Communications of the ACM*, volume 58, number 8, pages 21–23. ACM, August 2015. doi:10.1145/2790830. [\[Details\]](#)
- U2. Jean Camp, Lorrie Cranor, Nick Feamster, Joan Feigenbaum, Stephanie Forrest, Dave Kotz, Wenke Lee, Patrick Lincoln, Vern Paxson, Mike Reiter, Ron Rivest, William Sanders, Stefan Savage, Sean Smith, Eugene Spafford, and Sal Stolfo. **Data for Cybersecurity Research: Process and 'Wish List'**. June 10, 2009. Informal report. [\[Details\]](#)
- U3. Apu Kapadia, David Kotz, and Nikos Triandopoulos. **Opportunistic Sensing: Security Challenges for the New Paradigm**. *Proceedings of the International Conference on COMMunication Systems and NETWORKS (COMSNETS)*, 10 pages. IEEE, January 2009. doi:10.1109/COMSNETS.2009.4808850. Invited paper. Revision of [TR20](#). [\[Details\]](#)

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Media coverage

I list here the most significant instances.

Dartmouth produced in 2021 a [short interview about the privacy risks of smart home technology](#).

[ACM](#) and [Dartmouth](#) recognized me when I was named a Fellow of the ACM in the class of 2020.

I was quoted extensively in a 2020 [Lifewire](#) article about a new Amazon–AT&T partnership.

Many media outlets covered the June 2020 announcement of our new [SPLICE](#) project, including [San Francisco Chronicle](#), [BusinessInsider](#), [Valley News](#), [GraniteGeek](#), [NH Business Review](#), [HBCU Updates](#), [Yahoo Finance](#), [Daily News Bro](#), [Technically](#), [engadget](#), [diario dia](#), and the [AAAS news service](#).

[ACM](#) and [Dartmouth](#) recognized me when I was named a Distinguished Member of the ACM in fall 2018.

The National Academy of Engineering quoted me in a brief story about the Auracle project on their [Engineering Innovation Podcast and Radio Series](#), hosted by WTOP News in July 2017. [Listen](#) on their website.

Many media outlets covered our mHealth agenda paper ([RJ43](#)), including [ScienceDaily](#), [Healthcare IT News](#), [FierceHealthcare](#), [EurekAlert](#), [Newswise](#), and [FierceBiotech](#).

Quoted in [US News](#) about privacy of health-tracking apps, 2016.

Over 300 media outlets covered our Wanda paper ([RC37](#)), including [National Public Radio \(NPR\)](#), [ABC News](#), [Boston Herald](#), [Chicago Daily Herald](#), [Daily Mail](#), [FierceMobileHealthcare](#), [New York Times](#), [San Francisco Chronicle](#), [Seattle Times](#), [The Hindu](#), [The Independent](#), and the [Washington Post](#), 2016.

Articles about our ZEBRA paper ([RC40](#)) appeared in Communications of the ACM (CACM), VICE Motherboard, Gizmag, The Register UK, Planet Biometrics, Computer Business Review, Fierce Health IT, Daily Science News, Senior Tech Insider, Motherboard, Homeland Security Newswire, Dartmouth's Graduate Forum, and NFC World (follow links [here](#)), 2014. Project renamed CSAW (Continuous Seamless Authentication with Wristbands).

Articles announcing our [Amulet project](#) on [Dartmouth Now](#), [Clemson news](#), and [many others](#).

Articles announcing our [Trustworthy Health and Wellness project](#) on [Dartmouth News](#), [Associated Press](#), [Vermont Public Radio](#), and [others](#).

Articles on our bioimpedance-as-biometric paper ([RC44](#)) appeared in [Technology Review](#), [Popular Science](#), [Popular Mechanics](#), [NextGov](#), [ThirdFactor](#), [ARS Technica](#) and [In Vivo](#) magazine, The most thorough coverage was in [The Dartmouth](#) and [Dartmouth Now](#). August 2012.

Panelist on [The Exchange](#), a call-in show on New Hampshire Public Radio. [How Safe Is Safe?](#) September 12, 2005.

Interviewed in Waters magazine [You're Hit; Wall Street and Global Capital Markets are Prepared for Another Physical Attack, But is the Industry Ready for Cyber-Terrorism?](#), October 1, 2004.

Interviewed on BBC's The World [Tech report](#), August 2, 2004, about terrorists' use of the Internet.

Interviewed in The New York Times story [A New Kind of Revolution In the Dorms of Dartmouth](#), September 23, 2003.

Interviewed on [Discovery Channel Canada](#)'s technology show "Gadget Grrls." October 2002.

Expert guest on [CREN Tech Talk](#), a technical talk show hosted by the Corporation for Research and Educational Networking on Thursday, September 12, 2002.

Josh McHugh, [Unplugged U.](#), Wired Magazine, October 2002. This feature article is about the wireless network at Dartmouth College, and mentions my research [[RC93](#)] several times.

Invited talks and colloquia (202)

CONFERENCES AND WORKSHOPS *in reverse-chronological order*

(Invited presentations other than those for accepted papers.)

- 2023: [Keynote lecture](#) at the [International Conference on Distributed Computing in Smart Systems and the Internet of Things \(DCOSS-IoT\)](#), Cyprus, June 2023.
- 2022: “Webinar on Healthcare IoT”, January 2022
- 2020: Workshop “Technology for Automated Capture of Diet, Nutrition, and Eating Behaviors in Context” (virtual), October 2020.
- 2020: Workshop “Mobile Health Applications,” Universität Zürich, June 2020.
- 2019: [Big Data in the Life Sciences Symposium](#), Geisel School of Medicine, Dartmouth College, NH, May 2019.
- 2018: [Symposium on Automated Sensor Based Mobility Analysis for Disease Prevention and Treatment](#) at BSN/BHI, Las Vegas, Nevada, March 2018.
- 2018: [Workshop on Automated Dietary monitoring](#) at BSN/BHI, Las Vegas, Nevada, March 2018.
- 2017: [ACM Workshop on Wireless of the Students, by the Students, and for the Students Workshop \(S3\) at MobiCom](#), Snowbird, Utah, October 2017.
- 2017: [ACM Workshop on Wearable Systems and Applications \(WearSys\)](#), Niagara Falls, June 2017.
- 2015: [Medical Informatics World](#), Boston, May 2015.
- 2015: [Workshop on Networked Healthcare Technology \(NetHealth\)](#), Bangalore India, January 2015.
- 2014: [Privacy & Security Symposium at the mHealth Summit](#), Washington DC, December 2014.
- 2014: [Workshop on Mobile Medical Applications – Design and Development \(WMMADD\)](#), Memphis TN, November 2014.
- 2014: AAAS Workshop on Exploring Legal Challenges to Fulfilling the Potential of mHealth in a Safe and Responsible Environment, Washington DC, October 2014.
- 2014: [USENIX Summit on Health Information Technologies](#), San Diego CA, August 2014.
- 2013: [Wireless Health](#), Baltimore, MD, November 2013.
- 2012: [Workshop on Networked Healthcare Technology \(NetHealth\)](#), Bangalore, India, January 2012.
- 2011: [Wireless Systems: Advanced Research and Development \(WISARD\)](#), Bangalore, India, January 2011.
- 2010: [Workshop on Scenarios for Network Evaluation Studies \(SCENES\)](#), San Francisco, November 2010.
- 2009: [COMMunication Systems and NETWORKS \(COMSNETS\)](#), Bangalore, India, January 2009.
- 2009: [Wireless Systems: Advanced Research and Development \(WISARD\)](#), Bangalore, India, January 2009.
- 2007: [The Colloquium for Information Systems Security Education \(CISSE 2007\)](#), Boston, MA, June 2007.
- 2006: MSR Summit on Corporate/Campus Networks (EdgeNet 2006), Snoqualmie, WA, June 2006.
- 2005: [City WLAN 2005](#) (Keynote speech), Oulu, Finland, August 2005.
- 2005: Intel Security Workshop, Hillsboro, OR, July 2005.
- 2005: [Wireless Traffic Measurements and Modeling workshop](#) (panel session), June 2005.
- 2005: [First Workshop on Wireless Network Measurements](#) (Keynote speech), Riva del Garda, Italy, April 2005.
- 2004: EDUCAUSE ([award presentation](#)), October 2004.
- 2003: First ACM International Workshop on Wireless Mobile Applications and Services on WLAN Hotspots (panel chair), September 2003.
- 2002: Mobile Agents (keynote), October 2002.
- 1999: Dartmouth Workshop on Transportable Agents, October 1999.
- 1996: Third International Conference of the Austrian Center for Parallel Computation (keynote).
- 1996: CUNY Workshop on the First-year Computer-Science Curriculum (talk).
- 1995: Gordon Research Conference on High-Performance Computing and National Information Infrastructure (talk).
- 1995: International Parallel Processing Symposium (panel discussion).
- 1995: OSF/RI Research Symposium (talk).
- 1995: Wellesley Forum on Parallel Computing Curricula (talk).
- 1995: Frontiers '95 Workshop on Scalable I/O (talk).
- 1995: IEEE Symposium on High-Performance Distributed Computing (Tutorial, with Thomas H. Cormen).

- 1994: Dartmouth Institute for Advanced Graduate Studies (Tutorial).
- 1994: International Conference on Parallel Processing (panel discussion).
- 1992: Parallel Computing Curriculum Development Workshop, Colgate University (talk).
- 1990: DARPA/UMIACS Workshop on Parallel Processing (talk).
- 1989: DARPA/UMIACS Workshop on Parallel Processing (talk).
- 1987: BBN Butterfly User's Group Meeting (talk).

ACADEMIA *in reverse-chronological order*

(Name of my host is in parentheses.)

- 2023: Boston University (Reza Rawassizadeh) [[video](#)]
- 2021: ETH Zurich – Center for Digital Health Interventions (Elgar Fleisch)
- 2020: Rice University ECE, Distinguished Seminar (Akane Sano)
- 2020: Dartmouth Institute for Security, Technology, and Society (panel discussion)
- 2020: University of Basel (Christian Tschudin)
- 2020: Uppsala University (Christian Rohner)
- 2020: University of Oulu (Timo Ojala)
- 2020: Eidgenössische Technische Hochschule Zürich (ETH Zurich) (Srdjan Capkun)
- 2019: École Polytechnique Fédérale de Lausanne (EPFL) (Jean-Pierre Hubaux)
- 2019: Oxford University (Nic Lane)
- 2019: Cambridge University (Cecilia Mascolo)
- 2019: UC London (Mirco Musolesi)
- 2019: Mobile Health to Knowledge (MD2K) Consortium (Vivek Shetty) [watch [video](#)]
- 2019: Skidmore College (Aarathi Prasad)
- 2019: Chinese University of Hong Kong (CUHK) (Guoliang Xing)
- 2018: Carnegie-Mellon University (CMU) – CyLab (Douglas Sicker)
- 2017: IIT (Indian Institute of Technology), Delhi (Sanjiva Prasad)
- 2017: ETH Zurich – Center for Digital Health Interventions (Tobias Kowatsch)
- 2017: New York University – Center for Drug Use and HIV Research (CDUHR) (Noelle Leonard)
- 2016: University of Washington (Shrirang Mare) [watch [video](#)]
- 2016: Amherst College (Aarathi Prasad)
- 2016: University of Massachusetts Amherst (Brian Levine)
- 2016: University of Massachusetts Boston (Xiaohui Liang)
- 2016: Healthcare Privacy Working Group
- 2016: NIDA National Clinical Trials Network
- 2014: University of Memphis (MD2K.org) (Santosh Kumar)
- 2014: Stanford University (John Mitchell)
- 2014: UC Berkeley (Anthony Joseph)
- 2013: Clemson University (Jacob Sorber)
- 2013: Medical University of South Carolina (Frank Treiber)
- 2012: Indiana University (Apu Kapadia)
- 2011: St Andrews University (Tristan Henderson)
- 2009: University of Auckland, New Zealand (Gerard Rowe)
- 2009: University of Adelaide, Australia (Cheryl Pope)
- 2009: University of Sydney, Australia (Lavy Libman)
- 2009: Reva Institute of Technology & Management, Bangalore (Vijay Kumar, CSE)
- 2009: Indian Institute of Technology, Guwahati (G. Sajith, CSE)
- 2009: National Degree College, Bangalore (M. K. Sridhar)
- 2009: Indian Institute of Technology, Delhi (Sandeep Sen, CSE)
- 2009: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)

2009: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)
2009: Indian Institute of Technology, Bombay (Varsha Apte, CSE)
2008: Indian Institute of Technology, Madras (Krishna Sivalingam, CSE)
2008: Madras Institute of Technology (S. Srikanth, AU-KBC Research Centre)
2008: Indian Institute of Science, Bangalore (Y. N. Srikant, CSA)
2008: Indian Institute of Technology, Kharagpur (Indranil Sen Gupta, SIT)
2008: Indian Institute of Technology, Kanpur (Rajat Moona, CSE)
2008: Indian Institute of Science, Bangalore (Anurag Kumar, ECE)
2008: Rutgers University Distinguished Lecture Series (Marco Gruteser)
2007: University of Massachusetts Lowell (Guanling Chen)
2007: Indian Institute of Science, Bangalore (Anurag Kumar)
2006: Cornell University (Emin Gün Sirer)
2006: Georgia Institute of Technology (Mustaque Ahamad)
2006: University of California, Berkeley (Kris Pister)
2005: Duke University (Owen Astrachan)
2004: Colorado School of Mines (Jason Liu)
2002: Boston University (Mark Crovella)
2002: Stanford University (Mary Baker)
2002: U.C. Berkeley (Randy Katz)
2001: Institute for Security Technology Studies (Garry Davis)
1998: University of Geneva, Switzerland (Alex Villazon)
1998: Ecole Polytechnique Fédérale de Lausanne, Switzerland (Roger Hersch)
1996: University of Vienna (Peter Brezany)
1996: University of New Hampshire (Phil Hatcher)
1995: University of Connecticut (Phyllis Crandall)
1995: Duke University (Carla Ellis)
1995: University of North Carolina (Nyland, Lastra, Prins, Chatterjee)
1995: Georgia Tech (Karsten Schwan)
1995: Cornell University (Ken Birman)
1995: University of Rochester (Michael Scott)
1995: Rochester Institute of Technology (Nan Schaller)
1995: University of Illinois Urbana-Champaign (Dan Reed, Andrew Chien)
1995: Syracuse University (ACM Chapter)
1994: University of Virginia (Andrew Grimshaw)
1994: University of Maryland (Joel Saltz)
1994: University of Toronto (Michael Stumm)
1994: Syracuse University (Alok Choudhary)
1994: UC Santa Cruz (Darrell Long)
1994: Princeton University (Kai Li)
1994: Johns Hopkins University (Magda Konstantinidou)
1994: University of Michigan (Peter Chen)
1994: University of Wisconsin (David DeWitt)
1994: Carnegie Mellon University (Garth Gibson) (2 talks)
1994: Carnegie Mellon University (Garth Gibson) (2 talks)
1991: University of Pittsburgh (job talk)
1991: Dartmouth College (job talk)
1991: University of North Carolina (job talk)
1991: University of Kentucky (job talk)
1991: Syracuse University (job talk)
1991: University of South Carolina (job talk)

1991: University of Cincinnati (job talk)

1991: University of Tennessee (job talk)

INDUSTRY *in reverse-chronological order*

(Name of my host is in parentheses.)

2019: Samsung Research (Minkyong Kim)
2019: ARM Research (Prakash Ramrakhiani) [[video](#)]
2016: Intel Labs (Cory Cornelius)
2015: Medical Mutual Insurance, Falmouth ME (annual meeting)
2012: Microsoft Research, Redmond (Stefan Saroiu) [[video](#)]
2011: Microsoft Research India, Bangalore (Krishna Chintalapudi)
2009: Nokia Research Lab, Bangalore (Archana Sunderashan)
2009: Tata Consulting Services (TCS) Innovation Lab, Bangalore (P. Balamuralidhar)
2009: IBM Research Lab, Bangalore (Shivkumar Kalyanaraman)
2009: Bell Labs India, Bangalore (Vikram Srinivasan)
2008: Microsoft Research, Bangalore (Venkat Padmanabhan)
2008: Intel Research, Bangalore (Vittal Kini)
2007: Microsoft Research, Bangalore (Venkat Padmanabhan)
2007: Infosys, Bangalore (V. P. Kochikar)
2007: Intel Research, Bangalore (Vittal Kini)
2006: IBM T.J. Watson Research Center (Apratim Purakayastha)
2005: BAE Systems (Rich Ashooh)
2004: Microsoft Research
2004: Google
2004: McKinsey & Company
2004: Cisco Systems
2004: Cisco Systems (Matt Schmitz)
2003: Intel Research Seattle (Gaetano Borriello)
2003: Intel Labs, Hillsboro (Abel Weinrib) [[video](#)]
2003: HP Labs (John Barton)
2003: Microsoft Research (Jon Howell) [[video](#)]
2002: Intel (Julie Coppernoll)
2002: Cisco Systems (Joe DeStefano, Bill Rossi)
2002: Airgo Networks (Skip Stritter)
2002: Handspring (Debbie Chyi, Arun Mathias)
2002: DoCoMo Labs USA (Ravi Jain)
2001: Mitsubishi Electric Research Lab (David Wong)
2000: IBM T.J. Watson Research Center (Apratim Purakayastha)
1997: General Magic, Inc. (James White)
1993: Thinking Machines Corporation (Mike Best)
1993: MasPar Computer Corporation (Russ Tuck)
1992: IBM T.J. Watson Research Center (Marc Snir, Peter Corbett)
1992: Intel SSD (Denise Ecklund)
1992: nCUBE (Mike del Rosario)
1992: Hewlett Packard Labs (John Wilkes)
1992: Center for High Performance Computing (Richard LaRowe, Jr.)

GOVERNMENT *in reverse-chronological order*

2020: Smart and Connected Health — Expert Panel: Secure and Private Smart Health

- 2017: NSF Smart and Connected Health — vision meeting
- 2017: NSF Secure and Trustworthy Cyberspace — semi-annual PI meeting
- 2016: U.S. Department of State — Workshop on *Cyber Security: Data Manipulation*
- 2015: Precision Medicine Initiative — planning workshop with NIH Director Francis Collins
- 2015: National Science Foundation
- 2015: [NSF Workshop on Wireless Security](#)
- 2014: [NSF Workshop on Mobile Community Measurement Infrastructure](#)
- 2014: [NIH and NSF National Workshop on Computing Challenges in Future Mobile Health \(mHealth\) Systems and Applications](#)
- 2014: [USA Science Festival \(NSF booth\)](#)
- 2014: [NSF Workshop on Research Frontiers in Medical Cyber-Physical Systems](#)
- 2013: [NSF Workshop on Future Directions in Wireless Networking](#)
- 2011: [NSF Indo-US Workshops on Developing a Research Agenda in Pervasive Communications and Computing Collaboration \(PC3\)](#)
- 2011: [NSF Workshop on Pervasive Computing at Scale \(PeCS\)](#) [report]
- 2008: US/DoD – Finland/Tekes Collaborative Workshop, Washington, DC
- 2005: [NSF workshop on Grand Challenges in Distributed Systems](#) [report]
- 2002: Argonne National Laboratory (Rajeev Thakur)
- 1999: Air Force Research Lab, Rome, NY (Rick Metzger) [[video](#)]
- 1999: Sandia National Laboratories, Albuquerque (David Womble)
- 1997: Sandia National Laboratories, Livermore (Joe Durant)
- 1996: Sandia National Laboratories, Albuquerque (David Womble)
- 1995: Argonne National Laboratory (Ian Foster)
- 1994: NASA Ames Research Center (Bill Nitzberg) [[video](#)]
- 1994: Sandia National Laboratories (David Womble)
- 1992: Army Research Office (Ken Clark)
- 1991: ICASE (job talk)

Consulting (expert witness)

On behalf of the party marked with asterisk.*

| | |
|--|-------------------|
| <i>CallWave Communications* vs. Google and others</i> Attorney: Suparna Datta, Pepper Hamilton | 2014–2017 |
| <i>Skyhook Wireless* vs. Google</i> Attorney: Steven Cherensky, Tensegrity Attorney: Sam Lu, Irell & Manella Deposed in 2011 and 2014; case settled before trial. | 2013–2015 2011 |
| <i>Wi-LAN* vs. Research in Motion (RIM)</i> Attorney: James Hietala, Carlson Caspers | 2011 |
| <i>TMC Patents* vs. HP and Compaq</i> Attorney: Jeffrey M. Gold, Morgan Lewis & Brockius | 2002 |
| <i>Previo vs. Connected Corporation*</i> Attorney: Howard Susser, of Mintz Levin Cohn Ferris Glovsky and Popeo | 2001 |
| <i>Palm vs. Kessel Electronics*</i> Attorney: Sanny Kwong, of Hong Kong Studying computer codes for copyright suit on behalf of Kessel Electronics (Hong Kong). | 2001 |
| <i>EMC Corporation* vs. StorageApps</i> Attorney: Peter Dichiaro, of Hale and Dorr | 2001 |
| <i>SeaChange International* vs. nCUBE</i> Attorney: Steven Katz, of Fish & Richardson Deposed and attended trial but did not need to testify. | 2000 |

Professional activities

ACM Fellow and longtime member of the [Association for Computing Machinery](#).

- Chair of SIGMOBILE “[Outstanding Contribution](#)” and “[Rockstar](#)” Committee, 2019–date.
- Member of SIGMOBILE “[Test of Time Award](#)” Committee, 2019.
- Chair of ACM Special Interest Group on Operating Systems ([SIGOPS](#)), 2001–2003.
- Secretary-treasurer of ACM Special Interest Group on Operating Systems ([SIGOPS](#)), 1999–2001.

IEEE Fellow and longtime member of the [IEEE Computer Society](#).

- Vice-chair of IEEE Technical Committee on Operating Systems (TCOS), 1997–1998.

USENIX member.

- University Campus Liaison for Dartmouth College, 1992–date.

CRAWDAD co-founder and co-leader.

- Community Resource for Archiving Wireless Data At Dartmouth, 2004–date.

JOURNALS – EDITORIAL COMMITTEES *in reverse-chronological order*

Associate Editor for [ACM HEALTH](#), 2020–2021.

Co-editor of Special Issue of [ACM HEALTH](#) on “Wearable Technologies for Smart Health,” 2019–20.

Associate Editor for [Pervasive and Mobile Computing](#), 2007–2012.

Associate Editor for [IEEE Transactions on Mobile Computing](#), 2005–2011.

Area Editor of “Context-aware mobile computing” in SIGMOBILE’s flagship publication *Mobile Computing and Communications Review* (MC2R), 2002–2003.

Co-editor of Special Issue of *Concurrency Practice and Experience* on “High-performance agent systems,” 1999.

TECHNICAL PROGRAM COMMITTEES *in reverse-chronological order*

Chair or member of 39 technical program committees (TPC).

[SenSys 2019](#): ACM Conference on Embedded Networked Sensor Systems (SenSys)

[IEEE S&P 2019](#): IEEE Symposium on Security & Privacy, aka “Oakland”

[CCS 2017](#): ACM Conference on Computer and Communications Security

(external) [MobiSys 2016](#): ACM Conference on Mobile Systems, Applications, and Services

(co-chair) [HealthTech 2015](#): USENIX Summit on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies

[HealthTech 2014](#): USENIX Summit on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies

[NetHealth 2014](#): COMSNETS Workshop on Networked Healthcare Technology

[ACM DEV4](#): ACM Symposium on Computing for Development (end of 2013)

[MobiSys 2013](#): ACM Conference on Mobile Systems, Applications, and Services

[NetHealth 2012](#): COMSNETS Workshop on Networked Healthcare Technology

[mHealthSys 2011](#): Workshop on Mobile Systems, Applications, and Services for Healthcare

[HealthSec 2011](#): USENIX Workshop on Health Security and Privacy

[NetHealth 2011](#): COMSNETS Workshop on Networked Healthcare Technology

[HealthSec 2010](#): USENIX Workshop on Health Security and Privacy

[HotPlanet 2010](#): ACM International Workshop on Hot Topics in Planet-scale Measurements

[ICDCN 2009](#): International Conference on Distributed Computing and Networking

[Mobility Models 2008](#): Workshop on Mobility Models, colocated with MobiHoc 2008

[Mobicom 2007](#): ACM Conference on Mobile Computing and Networking

[MobiSys 2006](#): ACM Conference on Mobile Systems, Applications, and Services

(co-chair) [MobiSys 2005](#): ACM Conference on Mobile Systems, Applications, and Services

[Mobicom 2004](#): ACM Conference on Mobile Computing and Networking

[WMASH 2003](#): Workshop on Wireless Mobile Applications and Services on WLAN Hotspots

[MobiSys 2003](#): ACM Conference on Mobile Systems, Applications, and Services

[MDM 2003](#): International Conference on Mobile Data Management

[COOPIS 2002](#): International Conference on Cooperative Information Systems

[FAST 2002](#): File systems And Storage Technology

(chair) [ASA/MA 2000](#): Joint Symposium on Agent Systems and Applications, and on Mobile Agents

ASA/MA 1999: Joint Symposium on Agent Systems and Applications, and on Mobile Agents

[Workshop](#) “Agent-Based High Performance Computing: Problem Solving Applications and Practical Deployment” at Autonomous Agents ’99

[MAC3 1999](#): Workshop on Mobile Agents in the Context of Competition and Cooperation at Autonomous Agents ’99

MA 1998: International Workshop on Mobile Agents

(chair) [IOPADS 1997](#): Workshop on I/O in Parallel and Distributed Systems

(chair) [FPCC 1997](#): Forum on Parallel Computing Curricula, held in conjunction with SPAA

[PDIS 1996](#): Int’l Conference on Parallel and Distributed Information Systems

[ACPC 1996](#): International Conference of the Austrian Center for Parallel Computation

[IOPADS 1996](#): Workshop on I/O in Parallel and Distributed Systems

[SIGMETRICS 1996](#): Conference of Measurement and Modeling of Computer Systems

DAGS 1993: Dartmouth Institute for Advanced Graduate Studies Symposium on Parallel Computing

DAGS 1992: Dartmouth Institute for Advanced Graduate Studies Symposium on Parallel Computing

ORGANIZING COMMITTEES *in reverse-chronological order*

Role as General Chair or member of organizing committee.

General co-chair, [MobiSys 2014](#): ACM Conference on Mobile Systems, Applications, and Services

- General co-chair**, [SITH 2013](#): Securing Information Technology in Healthcare: Part III
- General co-chair**, [COMSNETS 2013](#): International Conference on COMMunication Systems and NETworkS
- General co-chair**, [SITH 2012](#): Securing Information Technology in Healthcare: Part II
- General co-chair**, [SITH 2010](#): Securing Information Technology in Healthcare
- Instigator and Co-organizer**, [mHealth India 2009](#): Workshop on mobile computing in healthcare, for India
- Steering Committee Chair**: “Mobile Agents” series of conferences
- Steering committee chair**, SOSP 2001, 2003: Symposium on Operating Systems Principles
- General Chair**, [MA 2001](#): Mobile Agents
- Co-organizer**, DWTA 2000: Dartmouth Workshop on Transportable Agents
- General chair**, SOSP ’99: Symposium on Operating Systems Principles
- Co-organizer**, [DWTA 1999](#): Dartmouth Workshop on Transportable Agents
- Co-organizer**: [Workshop](#) “Agent-Based High Performance Computing: Problem Solving Applications and Practical Deployment” at Autonomous Agents ’99
- Steering committee**, WMCSA 1998–99: Workshop on Mobile Computing Systems and Applications
- Treasurer**, [DWTA 1997](#): Dartmouth Workshop on Transportable Agents
- General co-chair**, [DWTA 1996](#): Dartmouth Workshop on Transportable Agents
- Tutorials Committee member**, Supercomputing ’96
- Working Group member**, [SDCR](#): ACM Workshop on Strategic Directions in Computing Research, Working Group on Storage I/O for Large-Scale Computing, June 1996
- General co-chair**, [IOPADS 1996](#): Workshop on I/O in Parallel and Distributed Systems
- Organizing Committee member**, FCRC 1996: Federated Computing Research Conference
- Local Arrangements Committee chair**, DAGS 1993: Dartmouth Institute for Advanced Graduate Studies, Symposium on Parallel I/O and Databases
- Steering Committee member**, DAGS 1992–94: Dartmouth Institute for Advanced Graduate Studies
- OTHER PROFESSIONAL COMMITTEES *in reverse-chronological order*
- NSF review panel member**: 1995, 1996, 2005, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2020.
- Advisory Board member** for NSF-funded effort [Provence-based Data Analytics Cyberinfrastructure for High-frequency Mobile Sensor Data](#); Principal Investigator: Santosh Kumar, University of Memphis. 2016–2021.
- Health Information Technology Policy Committee**: 2013–2017. The [HIT Policy Committee](#) makes recommendations to the National Coordinator for Health IT on the development and adoption of a nationwide health information infrastructure, including standards for the exchange of patient medical information.
- NIH review panel member**, 2016: Precision Medicine Initiative Cohort Program Participant Technologies Center study section. The Precision Medicine Initiative is now the “[All of Us](#)” program.
- White House Office of Science and Technology Policy (OSTP)**, Fall 2015: I was invited to a round-table discussion regarding cyber-security policy for the president’s Precision Medicine Initiative, now known as the “[All of Us](#)” program.

IEEE Fellows selection committee: 2012.

USENIX Scholastic Committee: Evaluating research-funding proposals from graduate students, 1997–2000.

Computer Science Advisory Committee member: Computer Management Group (CMG), 1995. Selecting awardees for CMG Fellowships.

DARTMOUTH COMMITTEES *in reverse-chronological order*

Dartmouth College Leadership:

Provost, January 2022–present.
 Interim Provost, July–December 2021.
 Chair, Academic Planning Council, July 2021–present.
 Chair, Executive Budget Committee, July 2021–present.
 Chair, Budget Committee, July 2021–present.
 Steering Committee of the General Faculty, July 2021–present.
 Dartmouth Senior Leadership Group, July 2021–present.
 Interim Provost, eleven months 2017–18.
 Chair, Academic Planning Council, 2017–18.
 Chair, Budget Committee, 2017–18.
 Steering Committee of the General Faculty, 2017–18.
 Dartmouth Senior Leadership Group, 2017–18.
 Associate Dean of Faculty for the Sciences, six years 2009–2015.
 Chair, Science Divisional Council, 2009–2015.
 Chair, Dartmouth Centers Forum: 2006–2007.
 Executive Director of the Institute for Security Technology Studies (ISTS), 2004–2007.
 Director of Research and Development at ISTS, 2003–2004.
 Director of the Center for Mobile Computing, 1997–2007.

Dartmouth College Committees and Councils:

Committee Advisory to the President (CAP), *ex officio*, 2021–present.
 Committee on Priorities (CPr), *ex officio*, 2021–present.
 Council on Institutional Priorities (CIPr), *ex officio*, 2021–present.
 Council on Work-Life Issues (COWLI), *ex officio*, 2021–present.
 Council on Academic Freedom and Responsibility (CAFR), 2020–21.
 Committee on the Faculty (COF), 2020–21.
 Committee Advisory to the President (CAP), 2020–21.
 Committee Advisory to the President (CAP), *ex officio*, 2017–18.
 Committee on Priorities (CPr), *ex officio*, 2017–18.
 Science strategy working group, co-chair, 2016.
 Pre-health advising working group, 2014–2015.
 BASIC 50th anniversary planning committee: 2013–2014.
 Learning 21: Steering Committee, 2012–2013.
 Executive Working Group on Information Technology, 2012–2015.
 Strategic planning workgroup on Graduate Studies of the Future, 2011–12.
 Budget Committee, 2010–2015.
 Faculty Advisory Group on Blitz Transition project: 2010–2011.
 Council on Undergraduate Research: 2010–2015.
 Academic Planning Committee, 2009–2015.
 Council on Computing, 2009–2015.
 Council on Sponsored Activities, 2009–2015.
 Conflict of Interest Committee, 2009–2015.
 Committee on Withdrawals, 2009–2015.
 Montgomery Endowment Steering Committee, 2009–2015.
 Research Computing Oversight Committee, 2009–2011.

Enterprise Systems Review Committee, 2009–2010.
Committee on NEASC Reaccreditation (Standard 4), 2009–2010.
Study group on Communication and Collaboration Tools (Chair), Spring 2010.
Committees on IT consolidation (research, infrastructure, support), Winter 2010.
Ad-hoc committee to review technology transfer and entrepreneurship, Fall 2009.
Security Oversight Committee (Computing Services): 2005.
ISTS Faculty Advisory Committee, 2002–2007 (Chair, 2003–2007).
Alumni Council (Faculty Representative), 2002–2004.
Computing Technology Venture Fund, 2001–2002.
Ad-hoc committee to bring a wireless network to campus, 1999–2001.
Ad-hoc committee on Academic Computing, leading to “eLearning center” proposal, 1999–2000.
Accreditation subcommittee on Computing and Information Environment, 1999.
Dartmouth Outing Club, Board of Directors, 1993–1999.
Council on Libraries, 1992–1994, 1998–1999.
College Course Steering Committee, 1997–1999.
Council on Honorary Degrees, 1996.

Dartmouth Departmental Committees:

CS Undergraduate Program Director. Spring 2021.
CS Faculty Recruiting Committee. 1993–1994, 1995–1996, 1999–2000, 2002–04, 2006–07, 2016–17; chair 2000, 2003, 2007 and 2017.
Ph.D Student Recruiting Committee (publicity), 2007–08.
Assistant Chair of Computer Science. 2002–2003.
Advisor to CS Ph.D students, 2000.
Equipment Committee, 1992–2000, chair 1995–1996 and 1997–2000.
Building Committee, chair 1997–1999, Summer 2001, Winter-Spring 2002, chair 2002–2003.
Advisor to CS undergraduates, 1993–1994, 1995–1998.
CS Curriculum Committee. 1995–1998.
CS Undergraduate Program Committee. 1993–1994.
Computer Science Colloquium Chair, 1992–93.
John G. Kemeny Prize committee, judging for an undergraduate programming prize, 1992, 1998, 1999.
Chair of “Parallel Needs” (PaN) Committee, 1991–1992.

Dartmouth College Alumni Committees:

VOX Alumni Network Advisory Committee, 1997–2002.

Academic activities

SABBATICALS in reverse-chronological order

Fall 2019 – Spring 2020: ETH Zürich, Switzerland

Fall 2008 – Spring 2009: Indian Institute of Science, Bangalore, India

Winter 1995: Syracuse University, Department of Electrical and Computer Engineering

Fall 1994: University of Virginia, Department of Computer Science

RESEARCH STUDENTS in reverse-chronological order

Ph.D students (current):

Ravindra Mangar (2022–present): SPLICE.

César Arguello Martinez (2022–present): SPLICE.

Chixiang Wang (2021–present): SPLICE.

Ph.D students (completed): *See list of their theses on page 33.*

Taylor Hardin (2016–2022): now a postdoctoral engineer at Blocky, a blockchain startup.

Varun Mishra (2016–2021): now an Assistant Professor at Northeastern University.

Shengjie Bi (2016–2021): now a Research Scientist at Facebook.

Travis Peters (2014–2020): now at a security consulting firm [Include Security](#).

Timothy Pierson (2012–2018): now a Lecturer at Dartmouth.

Shrirang Mare (2009–2016): now an Assistant Professor at Western Washington University.

Aarathi Prasad (2009–2016): now an Assistant Professor at Skidmore College.

Cory Cornelius (2009–2013): now at Intel Labs.

Keren Tan (2006–2011): now at Facebook.

Udayan Deshpande (2003–2008): now at Gigamon.

Ming Li (2002–2008): now at Daily Goods Design LABS.

Soumendra Nanda (2004–2008): now VP at Parallel Wireless after many years at BAE Systems.

Libo Song (2002–2008): now at Google.

Kazuhiro Minami (1999–2006): now an Associate Professor at the Institute of Statistical Mathematics in Japan.

Guanling Chen (1999–2004): now CTO of ForU (China), after years as a tenured professor at UMass Lowell.

Ron Oldfield (1997–2003): now Manager, Scalable Analysis and Visualization, Sandia National Laboratories.

Jonathan Bredin (1996–2001): was VP at Two Sigma Investments, and tenured professor at Colorado College.

Jon Howell (1995–2000): now at VMware Research, after many years at Microsoft Research and Google.

Nils Nieuwejaar (1993–1996): now Principal Engineer at Brightgate Inc.

M.S. students (completed): *See list of their theses on page 33.*

Namya Malik (2021–2022): now a software engineer at Pinterest.

George Boateng (2016–17): now in a PhD program at ETH Zürich.

Tianlong Yun (2014–2016): now at Google.

Rima Narayana Murthy (2011–2014): recently at Oracle.

Zhenhui Jiang (2004–2005): now at Bridgewater Consulting.

Jue Wang (2003–2004): now at Visa, Inc.

Ting Cai (1997): now at Google, after many years at Microsoft.

Saurab Nog (1996): now VP of Oracle Cloud.

Preston Crow (1992–1994): now at EMC.

Post-docs supervised:

Weijia He (2022–date): in the SPLICE project.

Nurzaman Ahmed (2022): now an Engineering Research Scientist at the Donald Danforth Plant Science Center.

Beatrice Perez (2020–2022): now on research staff at Riverside Research.

Varun Mishra (2021): now an Assistant Professor at Northeastern University.

Sougata Sen (2017–2019): now an assistant professor at BITS-Pilani University in Goa.

Reza Rawassizadeh (2016–2017): now an Associate Professor at Boston University.

Xiaohui Liang (2014–2015): now an Assistant Professor at UMass Boston.

Andrés Molina-Markham (2012–2014): now Lead Cyber Security Researcher at MITRE.

Jacob Sorber (2010–12): now an Associate Professor at Clemson University.
 Anna Shubina (2008–2010): now a computer security consultant.
 Minh Shin (2007–2010): now an Associate Professor at Myongji University, Korea.
 Michael Locasto (2008): now a Senior Computer Scientist at SRI International.
 Apu Kapadia (2006–2008): now an Associate Professor at Indiana University.
 Sergey Bratus (2002–2005, 2007–2008): now a Program Director at DARPA.
 Vijay Bhuse (2007): now an Assistant Professor at Grand Valley State University, after several years in industry.
 Yong Sheng (2006–2007): now Tech Lead Manager, Senior Staff Engineer at Google.
 Tristan Henderson (2003–2006): now on the faculty at the University of St. Andrews, Scotland.
 Minkyong Kim (2004–2006): now Director of (AI/ML) Siri Experience, at Apple.
 Arnab Paul (2005): now a Research Scientist at Intel.
 Marco Cremonini (2000–2001): now an Assistant Professor at Università degli Studi di Milano in Milan, Italy.

Undergraduate research students mentored:

Senior Thesis:

| | | |
|----------------------|---------------|------|
| Adam Vandenbussche | Senior Thesis | 2022 |
| Paul Gralla | Senior Thesis | 2021 |
| Sarah Hong | Senior Thesis | 2021 |
| Fedor Myagkov | Senior Thesis | 2021 |
| Tanguy Nef | Senior Thesis | 2021 |
| Viney Regunath | Senior Thesis | 2021 |
| Alexandra Dalton | Senior Thesis | 2017 |
| Emily Greene | Senior Thesis | 2017 |
| David Harmon | Senior Thesis | 2017 |
| Anna Knowles | Senior Thesis | 2016 |
| George Boateng | Senior Thesis | 2016 |
| Bingyue Wang | Senior Thesis | 2016 |
| Rebecca Lau | Senior Thesis | 2013 |
| Shloka Kini | Senior Thesis | 2013 |
| Emma Smithayer | Senior Thesis | 2012 |
| Phillip Fazio | Senior Thesis | 2011 |
| Jeff Fielding | Senior Thesis | 2008 |
| Cal Newport | Senior Thesis | 2004 |
| Clara Lee | Senior Thesis | 2003 |
| Chris Masone | Senior Thesis | 2002 |
| Abe White | Senior Thesis | 2002 |
| Ammar Khalid | Senior Thesis | 2001 |
| Arun Mathias | Senior Thesis | 2001 |
| Ayorkor Mills-Tettey | Senior Thesis | 2001 |
| Pablo Stern | Senior Thesis | 2001 |
| Debbie Chyi | Senior Thesis | 2000 |
| Jay Artz | Senior Thesis | 2000 |
| Cenk Ergan | Senior Thesis | 1999 |
| Eric White | Senior Thesis | 1998 |
| Scott Silver | Senior Thesis | 1996 |
| Joel Thomas | Senior Thesis | 1996 |
| Ken Harker | Senior Thesis | 1995 |
| Song Bac Toh | Senior Thesis | 1995 |
| Jim Gochee | Senior Thesis | 1992 |
| Brendan Hahn | Senior Thesis | 1992 |

Presidential Scholar:

| | | |
|------------------|----------------------|------|
| Michael Perezous | Presidential Scholar | 2017 |
| Yining Chen | Presidential Scholar | 2017 |
| Emma Oberstein | Presidential Scholar | 2017 |

| | | |
|----------------------------------|----------------------|------|
| Emily Greene | Presidential Scholar | 2016 |
| Cal Newport | Presidential Scholar | 2002 |
| Tiffany Wong | Presidential Scholar | 2000 |
| Debbie Chyi | Presidential Scholar | 1999 |
| Jeff Steeves | Presidential Scholar | 1998 |
| Matt Carter | Presidential Scholar | 1997 |
| Dawn Lawrie | Presidential Scholar | 1995 |
| Sriram Radhakrishnan | Presidential Scholar | 1994 |
| Song Bac Toh | Presidential Scholar | 1993 |
| WISP (Women in Science Program): | | |
| Morgan Sorbaro | WISP Intern | 2017 |
| Lucy Tantum | WISP Intern | 2016 |
| Emily Greene | WISP Intern | 2014 |
| Christina Ma | WISP Intern | 2011 |
| Alex Della Pia | WISP Intern | 2011 |
| Janet Kim | WISP Intern | 2010 |
| Dana Malajian | WISP Intern | 2007 |
| Kelly Duggar | WISP Intern | 2003 |
| Amanda Eubanks | WISP Intern | 2000 |
| Neha Narula | WISP Intern | 2000 |

Above, mentored over 57 undergraduate and 31 graduate students as well as 20 postdoctoral scholars.

Thesis committee member:

Dartmouth College:

| | | |
|------------------------|------|-------------------|
| Josie Nordrum (MS) | 2018 | Dartmouth College |
| Xi Xiong (MS) | 2018 | Dartmouth College |
| Rui Wang | 2018 | Dartmouth College |
| George Boateng (MS) | 2017 | Dartmouth College |
| Jason Reeves | 2016 | Dartmouth College |
| Scout Sinclair | 2013 | Dartmouth College |
| Peter Johnson | 2015 | Dartmouth College |
| Priya Natarajan | 2011 | Dartmouth College |
| Chrisil Arackaparambil | 2011 | Dartmouth College |
| Song Ye | 2008 | Dartmouth College |
| Chris Masone | 2008 | Dartmouth College |
| Yurong Xu | 2008 | Dartmouth College |
| Meiyuan Zhao | 2005 | Dartmouth College |
| Guanhua Yan | 2005 | Dartmouth College |
| Fang Pei (MS) | 2004 | Dartmouth College |
| Nick Goffee (MS) | 2004 | Dartmouth College |
| Soumendra Nanda (MS) | 2004 | Dartmouth College |
| Jason Liu | 2003 | Dartmouth College |
| Qun Li | 2004 | Dartmouth College |
| Katya Pelekov | 2001 | Dartmouth College |
| Mark Montague | 2002 | Dartmouth College |
| Robert Gray | 1997 | Dartmouth College |
| Alex Colvin | 1999 | Dartmouth College |
| Pichet Chintrakulchai | 1995 | Dartmouth College |
| Len Wisniewski | 1995 | Dartmouth College |
| Peter Su | 1993 | Dartmouth College |
| John van Meter | 1993 | Dartmouth College |
| Larry Raab | 1992 | Dartmouth College |

| | | |
|-------------------|------|--|
| Deb Banerjee | 1992 | Dartmouth College |
| elsewhere: | | |
| George Boateng | 2022 | ETH Zürich & University of St. Gallen, Switzerland |
| Florian Künzler | 2020 | ETH Zürich & University of St. Gallen, Switzerland |
| Filipe Barata | 2020 | ETH Zürich & University of St. Gallen, Switzerland |
| Hang Cai | 2018 | Worcester Polytechnic Institute |
| Vincent Messerli | 1998 | École Polytechnique Fédérale de Lausanne (EPFL), Switzerland |
| Rajesh Bordawekar | 1996 | Syracuse University |
| Rajeev Thakur | 1995 | Syracuse University |
| Orran Krieger | 1994 | University of Toronto |

TEACHING in reverse-chronological order

Graduate courses taught at Dartmouth College:

- CS 89/189 Seminar (Security & Privacy for Smart Homes)
- CS 200 Seminar (Mobile and Wearable Health Systems)
- CS 88/188 Seminar (Pervasive computing)
- CS 88/188 Seminar (Context-aware mobile computing)
- CS 88/188 Seminar (Wireless networks and hand-held computers)
- CS 88/188 Seminar (Electronic Commerce and Market-based control)
- CS 88/188 Seminar (Transportable agents and extensible operating systems)
- CS 108 Advanced Operating Systems (3 times)
- CS 88/188 Seminar (Parallel Computing)

Undergraduate courses taught at Dartmouth College:

- CS 50 Software Design and Implementation (4 times)
- CS 98 Engineering Projects in Community Service (2 times)
- CS 78 Computer Networks (4 times)
- CS 37 Computer Architecture (4 times)
- CS 99 Current Trends and Ethical Issues in Computer Science (3 times)
- CS 58 Operating Systems
- CS 23 Software Design and Implementation (2 times)
- CS 9 Introduction to Computer Science, Honors Section

Other activities

Married, with three children (born 1996, 1999, and 2001).

Avid photographer, with gallery at photos.davidkotz.org.

Avid hiker:

[NE111](#): climbed all 115 peaks in New York and New England over 4000' elevation.

[NE67](#): climbed all 67 peaks in New England over 4000' elevation.

[NH48](#): climbed all 48 peaks in New Hampshire over 4000' elevation.

[ADK46er #10431](#): climbed all 46 high peaks in the Adirondack Mountains of New York.

[Kilimanjaro](#): climbed the highest peak on the continent of Africa.

Vice President of the Montshire Corporation for [Montshire Museum](#) (Member since 2012, Vice President 2022–present).

Member of the Board of Trustees for [Crossroads Academy](#) (2011–2017).

Member of the Advisory Council for the [Dartmouth Outing Club](#) (2009–2013).

Member of the Upper Valley Subcommittee of the [Connecticut River Joint Commission](#) (2006–2013), alternate (2013–date), as appointed by the Town of Lyme, NH.

Volunteer Land Steward with [Upper Valley Land Trust](#) (2000–2011, 2014, 2016, 2020).

Co-founded an annual computer programming contest held in real-time over the Internet. Participation grew from 60 teams from 37 institutions in 5 countries in Fall 1990, to 495 teams in Fall 1993.

Member of Duke team, 1989 and 1990 ACM International Programming Contests. Finished fourth in 1989 (Louisville, KY) and eighth in 1990 (Washington, DC).

Volunteer with the National Park Service in Olympic National Park, Summer 1986. Spent the summer in the backcountry, contacting visitors and maintaining trails.

Director of Freshman Trips for Dartmouth College, 1985: Made all arrangements for three-day outdoor trips for over 800 incoming freshmen. Wrote the database and support software, used 1983–1989.

Trip Leader for Dartmouth's "DOC Trips" (was "Freshman Trips"), a program to take incoming freshmen on three-day outdoor trips. 1983, 1991, 1992, 1993, 1995, 1998.