

Hany Farid

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APPOINTMENTS	Dartmouth College <i>David T. McLaughlin Distinguished Professor of Computer Science</i> Dartmouth College <i>Professor, Department of Computer Science</i> Dartmouth College <i>Associate Professor, Department of Computer Science</i> Dartmouth College <i>Assistant Professor, Department of Computer Science</i>	2007 – present 2007 2004 – 2006 1999 – 2004
EDUCATION	Massachusetts Institute of Technology <i>Postdoctoral Fellow, Brain and Cognitive Sciences</i> University of Pennsylvania <i>Ph.D., Computer Science</i> University of Rochester <i>B.S., Computer Science with Applied Mathematics</i>	1997 – 1999 1993 – 1997 1984 – 1988
AWARDS	John Simon Guggenheim Fellowship, Dartmouth College, 2006 Alfred P. Sloan Fellowship, Dartmouth College, 2002 Graduate Teaching Award, University of Pennsylvania, 1994	
GRANTS	National Science Foundation. <i>Instrument Development for Biological Research</i> (212K), Co-PI, 2008 National Science Foundation. <i>Digital Imaging Laboratory at Dartmouth</i> (427K), 2007 Department of Homeland Security. <i>Digital Video Forensics</i> (255K), 2007 Howard Hughes Medical Institute. <i>Undergraduate Science Education</i> (1.5M), Co-PI, 2006 United States Air Force. <i>Digital Image Forensics</i> (380K), 2006 National Science Foundation. <i>The Evolution of Mate Choice in Damsel Flies</i> (535K), Co-PI, 2005 Bureau of Justice Assistance. <i>Digital Image Forensics</i> (125K), 2005 Microsoft Corp. (175K), 2005, 2006 Adobe Systems, Inc. (110K), 2004, 2006 National Institute of Justice. <i>Digital Tampering and Secrets</i> (690K), 2003 National Institute of Justice. <i>Detecting Digital Tampering</i> (250K), 2000 National Science Foundation. <i>CAREER: Mixing and Separating Digital Images</i> (315K), 2000	
PUBLICATIONS (JOURNAL)	M.A. McPeck, L. Shen, J.Z. Torrey and H. Farid. The Tempo and Mode of 3-Dimensional Morphological Evolution in Male Reproductive Structures. <i>American Naturalist</i> , 171(5):E158-E178, 2008. M.J. Bravo and H. Farid. A Scale Invariant Measure of Image Clutter. <i>Journal of Vision</i> , 8(1):1-9, 2008. M.K. Johnson and H. Farid. Exposing Digital Forgeries in Complex Lighting Environments. <i>IEEE Transactions on Information Forensics and Security</i> , 2(3):450-461, 2007. W. Wang and H. Farid. Exposing Digital Forgeries in Interlaced and De-Interlaced Video. <i>IEEE Transactions on Information Forensics and Security</i> , 2(3):438-449, 2007.	

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- S. Lyu, D. Rockmore and H. Farid. A Digital Technique for Art Authentication. *Proceedings of the National Academy of Sciences*, 101(49):17006-17010, 2004.
- M.J. Bravo and H. Farid. Search For a Category Target in Clutter. *Perception*, 33:643-652, 2004.
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- H. Sun, H. Farid, D.W. Roberts, K. Rick, A. Hartov, and K.D. Paulsen. A Non-Contacting 3-D Digitizer for Use in Image-Guided Neurosurgery. *Stereoetactic and Functional Neurosurgery*, 80(1-4):120-124, 2003.
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P.S. Shenkin, H. Farid and J.S. Fetrow. Prediction and Evaluation of Side-chain Conformations for Protein Backbone Structures. *Proteins: Structure, Function and Genetics*, 26:323-352, 1996.

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BOOK CHAPTERS

H. Farid. Digital Doctoring: can we trust photographs? In *Deception: Methods, Motives, Contexts and Consequences*, Stanford University Press, 2008.

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PAPER)

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- W. Wang and H. Farid. Detecting Re-Projected Video. *10th International Workshop on Information Hiding*, Santa Barbara, CA, 2008.
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H. Farid. Digital Image Ballistics from JPEG Quantization. TR2006-583, Department of Computer Science, Dartmouth College, September 2006.

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Tricks in Tehran: on *Southern California Public Radio*, 7.10.08
Detecting Digital Alterations in Media on *Vermont Public Radio*, 7.2.08
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 Was Bin Laden's Last Video Faked? on *MSNBC*, 10.29.07
 Digital Forensics on *BBC, Night Waves*, 10.17.07
 Digital Photo Manipulation on *KMOX 1120*, 10.15.07
 Proving That Seeing Shouldn't Always Be Believing in *New York Times*, 10.2.07
 Digital Detectives Discern Photoshop Fakery in *The Christian Science Monitor*, 8.29.07
 Restoring Trust in Photojournalism in *Black Star Rising*, 8.7.07
 Distorted Picture in *American Journalism Review*, 7.30.07
 Magazines' Extreme Touch-ups on *The Today Show*, 7.23.07
 Photo Tampering an Age-Old Practice in *The Chronicle of Higher Education*, 6.27.07
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 True Lies in *Current Science*, 10.20.06
 True Renaissance by Computer in *Primo*, 9.2.06
 Are Fake Videos Next? in *News.com*, 9.11.06
 Digital Photo Manipulation, on *BBC Digital Planet*, 9.4.06
 Keeping It Real, in *The Economist*, 8.17.06
 Digital Art Authentication, on *NPR, 1370 Connection*, 8.11.06
 Program to Detect Crimes of Image Forgeries, in *Al-Ahram*, 3.19.06
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 The Hunt for Online Criminals in *Mass High Tech*, 2.20.06
 Detecting Fraud in Journals in *The Scientist*, 2.10.06
 A Digital Life on *CNN*, 2.2.06
 Should Journals Police Scientific Fraud? in *Nature News*, 2.2.06
 Smoking Out Photo Hoaxes in *News.com*, 1.31.06
 Image Check for Scientific Journals in *Der Spiegel*, 1.30.06
 It May Look Authentic; Here's How to Tell It Isn't in *New York Times*, 1.24.06
 Technology Seen Abetting Manipulation of Research in *Boston Globe*, 1.10.06
 Can Photos be Trusted in *Popular Science*, 9.1.05
 Fakes, Frauds, and Fake Fakers in *ARTNews*, 6.1.05
 Spotting a Digital Hoax on *The Discovery Channel*, 3.16.05
 Digital Detectives Reveal Art Forgeries in *Computing in Science & Engineering*, 3.1.05
 In The Photoshop Era, It's Harder To Trust Your Eyes in *USA Today*, 2.2.05
 Seeing is No Longer Believing in *The Christian Science Monitor*, 2.2.05
 Professors Who Are Changing the World in *New Hampshire Magazine*, 2.1.05
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 Photoshop Sleuths in *MIT Technology Review*, 1.17.05
 Computers Increasingly Used in Crimes on *WMUR TV News*, 12.16.04
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 Digital Forensics on *NHPR, Front Porch*, 12.14.04
 Debunking Photoshop Fakery in *New York Times (Year in Ideas)*, 12.12.04

Digital Art Authentication, in *ABC News*, *Australian Broadcasting Corporation*, *BBC Radio 4*, *BBC 5 Live*, *BBC World Service*, *Boston Globe*, *Baltimore Sun*, *CBC News*, *Charlotte Observer*, *Chicago Sun Times*, *Chicago Tribune*, *China Post*, *CNN*, *Jamaica Observer*, *Kansas City Star*, *Concord Monitor*, *Economist*, *Miami Herald*, *MSNBC*, *National Geographic*, *Nature*, *New Scientist*, *Newsday*, *Newsweek*, *New Zealand Herald*, *Philadelphia Inquirer*, *Radio Arthur*, *Rapid City Journal*, *Richmond Times*, *San Jose Mercury News*, *SciencCentral News*, *Science Magazine*, *Science News*, *Science Now*, *AAAS Science Update*, *Scientific American*, *Seattle Post Intelligencer*, *The Australian*, *The Globe and Mail*, *Times UK*, *Valley News*, *Voice of America*, *Washington Post*, *WCAX News*, *Wired News*, and *Yahoo News*, 11.23.04-11.25.04

Detecting Tampering in a Digital Photo on *Discoveries+Breakthroughs*, 10.26.04

Algorithm Detects Non-Watermarked Digital Forgeries in *Laser Focus World*, 10.1.04

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New Algorithm Foils Digital Forgers in *Yahoo! News*, 8.9.04

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A New Flavor of Digital Truth Serum, in *The New York Times*, 7.22.04

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Naked Eye Can't Tell If It's a Lie in *Poughkeepsie Journal*, 5.1.04

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Is Seeing Believing in *The Telegraph*, 9.17.03

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History Undercover with Arthur Kent: Cyberterrorism on *The History Channel*, 7.26.03

Mapping with Math in *BBC News*, 12.3.02

Mapping with Math in *EurekAlert*, *The Geological Society*, *Innovations Report*, *OE Mag.*, *ScienceDaily*, and *UPI*, 12.2.02

Molyneux Problem, in *Strange But True*, 7.17.02

Digital Tours of Murals, in *The Chronicle of Higher Education*, 7.9.02

Hidden Messages appearing on *WCAX TV News*, 10.19.01

Statistics Sniff Out Secrets appearing in *Technology Research News*, 9.26.01

Digital Secrecy appearing on *WNNE TV News*, 8.15.01

Digital Secrecy in *EurekAlert*, *GlobalTechnoScan*, *Popular Technologies*, and *ScienceDaily*, 8.10.01

INVITED TALKS

Digital Tampering and Forensics, Electronic Imaging Symposium (plenary talk), 1.08

Digital Image Forensics, The National Academies, 1.08

Digital Image Forensics, IBM Almaden, 11.07

Digital Image Forensics, University of California, Berkeley, 11.07

A Digital Technique for Art Authentication, Harvard University Art Museum, 10.07

Digital Image Forensics, Google, 4.07

Digital Image Forensics, Foveon Inc., 4.07

Exposing Digital Forgeries from Inconsistencies in Lighting, Carnegie Mellon University, 3.07

Digital Forensics, American Association for the Advancement of Science, 2.07

Digital Image Forensics, The Associated Press, 2.07

Exposing Digital Forgeries from Inconsistencies in Lighting, University of Pennsylvania, 2.07

Digital Tampering in the Media, Politics and Law, University of Pennsylvania, 2.07

Digital Image Forensics, Central Intelligence Agency, 12.06

From Photons to Pixels to Photoshop, Project Safe Childhood Conference, 12.06

Digital Image Forensics, Stanford University, 10.06

From Photons to Pixels to Photoshop, Crimes Against Children Conference, 8.06

Digital Image Forensics, Microsoft Corp., 6.06

A Digital Technique for Art Authentication, Rochester Memorial Art Gallery, 5.06

Digital Image Forensics, Eastman Kodak, 5.06

Digital Image Forensics, Google, 5.06

Digital Image Forensics, University of California, Davis, 5.06
Digital Image Forensics, National Academy of Sciences, 5.06
A Digital Technique for Art Authentication, San Diego Museum of Art, 3.06
A Picture is Worth a Thousand Lies, Dartmouth College, 2.06
Digital Image Forensics, Ricoh Innovations, 11.05
Energy vs. Synchrony in Perceptual Grouping, Univ. of California, San Diego, 11.05
From Photons to Pixels to Photoshop, Delaware Department of Justice, 9.05
From Photons to Pixels to Photoshop, High Tech. Crime Investigation Assoc., 8.05
Digital Image Forensics, National Association of Attorneys General, 6.05
How Realistic is Photorealistic?, University of California, Santa Cruz, 6.05
Digital Image Forensics, University of California, Berkeley, 5.05
Digital Image Forensics, University of California, Santa Cruz, 5.05
Digital Image Forensics, National Association of Attorneys General, 5.05
Digital Image Forensics, Adobe Systems, 4.05
Digital Image Forensics, Office of Research Integrity, 1.05
Digital Image Forensics, University of New Hampshire, 12.04
Digital Image Forensics, New Hampshire Cyber Crime Network, 12.04
Digital Image Forensics, Leslie Center for the Humanities, Dartmouth College, 11.04
Reconstructing Ancient Egyptian Tombs, Society for Imaging Science and Tech., 10.04
Digital Image Forensics, Adobe Systems, 10.04
Digital Image Forensics, National Association of Attorneys General, 9.04
Digital Image Forensics, University of Pennsylvania, 7.04
How Realistic is Photorealistic?, University of Illinois, 4.04
Universal Steganalysis, Central Intelligence Agency, 2.04
How Realistic is Photorealistic?, The Salk Institute, 1.04
Grouping by Temporal Synchrony?, The Salk Institute, 1.04
How Realistic is Photorealistic?, Stevens Institute of Technology, 12.03
How Realistic is Photorealistic?, Massachusetts Institute of Technology, 11.03
How Realistic is Photorealistic?, Harvard University, 11.03
How Realistic is Photorealistic?, University of Chicago, 11.03
How Realistic is Photorealistic?, University of Maryland, 11.03
Grouping by Temporal Synchrony?, University of Chicago, 10.03
Mixing and Unmixing Digital Images, Harvard University, 10.02
Temporal Synchrony in Perceptual Grouping?, University of Rochester, 9.02
Mixing and Unmixing Digital Images, New York University, 4.02
Mixing and Unmixing Digital Images, University of Pennsylvania, 3.02
Digital Tampering, Washington Univ. St. Louis, 1.02
Digital Secrets, Boston University, 12.01
Grouping by Temporal Synchrony, Harvard University, 11.01
Blind Removal of Image Non-Linearities, Columbia University, 11.01
Blind Removal of Image Non-Linearities, Massachusetts Institute of Technology, 10.01
Grouping by Temporal Synchrony, New York University, 10.01
Grouping by Temporal Synchrony, Massachusetts Institute of Technology, 3.01
Grouping by Temporal Synchrony, University of Pennsylvania, 3.01
Grouping by Temporal Synchrony, Boston University, 2.01
Blind Removal of Image Non-Linearities, University of Pennsylvania, 3.00
Digital Image Separation, George Mason University, 3.00
Grouping in Temporally Synchronous Displays, Dartmouth College, 12.99
Separating Digital Images, Brooklyn Polytechnic University, 3.99
Separating Digital Images, Dartmouth College, 3.99
ICA for Separating Images, Massachusetts Institute of Technology, 2.99
Separating Images, University of Pennsylvania, 10.98
Monocular Stereo, Polaroid Inc, 7.98
Digital Image Enhancement, Williams College, 4.98

Monocular Stereo, Massachusetts Institute of Technology, 3.98
Range Estimation by Optical Differentiation, University of California, Berkeley, 3.97
A Differential Optical Range Camera, Sensar Inc., 11.96
Direct Differential Range Estimation, Columbia University, 5.96
Steerable Filters for Low-level Image Processing, SUNY at Albany, 11.95
3-D Scene Reconstruction for Telepresence, UNC, Chapel Hill, 6.94

MENTOR

Summer Robot Camp, Dartmouth College, 2004-2007
Gates Millennium Scholarship, Dartmouth College, 2000
Mellon Minority Scholarship, Dartmouth College, 2000
Math Circle/Math Camp, 1998-2001, 2004
NASA Quality Education for Minorities, U. of Penn, 1995-1996
Philadelphia Math and Science Outreach, U. of Penn, 1994-1996

ASSOCIATE EDITOR

IEEE Transactions on Information Forensics and Security, 2005-current

PROGRAM
COMMITTEE

Media Security and Forensics (Electronic Imaging), 2009
Technical Advisory Board for Berkman's Internet Safety Task Force, 2008
Vision of the Unseen (CVPR Workshop), 2008
Statistical Learning in Computer Vision (ECCV Workshop), 2004
American Association for Artificial Intelligence (Vision/Perception), 2004
Statistical Analysis in Computer Vision (CVPR Workshop), 2003

REVIEWER

NSF review panel (ITR Medium), 2003
NSF review panel (CAREER: RHA/CV), 2000, 2002, 2003
NSF review panel (RHA/CV), 2000
American Association for Artificial Intelligence (AAAI), Computer Analysis of Images and Patterns (CAIP), Computer Vision and Pattern, Recognition (CVPR), Electronics Letters, European Conference on Computer Vision (ECCV), IEEE Transactions on Image Processing, IEEE Transactions on Multimedia, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Signal Processing, IEEE Security and Privacy, Information Hiding, International Conference on Computer Vision (ICCV), International Journal of Computer Vision, International Journal of Imaging Systems and Technology, Journal of Cognitive Neuroscience, Journal of the Optical Society of America, Journal of Visual Communication and Image Representation, Medical Physics, Perception, Proceedings of the Royal Society: Biological Sciences, SIGGRAPH, Vision and Applications, Vision Research

STUDENTS

Kimo Johnson (2007), Computer Science, Ph.D. advisor
Eric Kee, Computer Science, Ph.D. advisor
Jethro Rothe-Kushel '03, Religion, senior research advisor
Siwei Lyu (2005), Computer Science, Ph.D. advisor
David Martin '00, Computer Science, senior thesis advisor
Kiley McEvoy, '06, Engineering, senior research advisor
Joseph Pechter '04, Computer Science, senior thesis advisor
William Pechter '04, Computer Science, senior thesis advisor
Senthil Periaswamy (2003), Computer Science, Ph.D. advisor
Andrew Pierce '02, Mathematics, senior research advisor
Alin Popescu (2005), Computer Science, Ph.D. advisor
Nelson Rosa '06, Engineering, senior research advisor
Katherine Sherwin '01, Engineering/Physics, senior research advisor
Hai Sun (2004), Engineering, Ph.D. co-advisor
Weihong Wang, Computer Science, Ph.D. advisor

TEACHING Numerical and Computational Tools for Applied Science, CS 36/136, Summer 08
Concepts in Computing, CS 4, Summer 08
Numerical and Computational Tools for Applied Science, CS 36/136, Summer 07
Concepts in Computing, CS 4, Summer 07
Concepts in Computing, CS 4, Winter 06
Numerical Methods in Computer Vision, CS 188/88, Fall 04
Concepts in Computing, CS 4, Summer 03
Concepts in Computing, CS 4, Summer 02
Data Structures and Programming, CS 15, Winter 02
Data Structures and Programming, CS 15, Fall 01
Numerical Linear Algebra, CS106, Spring 01
Data Structures and Programming, CS 15, Winter 01
Data Structures and Programming, CS 15, Fall 00
Fundamentals of Image Processing, CS 188/88, Spring 00
Programming Languages, CS 68, Winter 00
Data Structures and Programming, CS 15, Fall 99

COLLEGE Associate Chair, 2004-present
COMMITTEES Ph.D. Advisor, 2004-2006
Steering Committee, Neuroscience Major, 2004-present
Director Search, Neukom Institute for Computational Science, 2005
HHMI Undergraduate Biological Sciences Education Proposal, 2005
Green Grid Computing, 2004-2005
Computer Science Building Expansion, 2003-2005
Faculty Search, Thayer School of Engineering, 2004
Department Web Master, 1999-2004
Faculty Recruiting, 2003
Ph.D. Graduate Admissions 2001-2003
Associate Director Search, ISTS, 2002
M.D./Ph.D. Admission, 2001