

OBJECTIVE	Research internship with a group working on advanced problems in computer vision. I am broadly interested in the area of image classification, object recognition and other related topics, and specifically excited about working on challenges posed by large scale data driven vision problems.
EDUCATION	<p><b>Dartmouth College</b>, Hanover, NH, USA  <i>Doctor of Philosophy</i> <span style="float: right;">Expected completion – Fall 2012</span></p> <ul style="list-style-type: none"> <li>• Dept of Computer Science, Advisor: Professor Richard Granger</li> </ul> <p><b>R.V. College of Engineering, V.T.U</b>, Bangalore, Karnataka, India  <i>Bachelor of Engineering</i>, <span style="float: right;">2004</span></p> <ul style="list-style-type: none"> <li>• Major: Computer Science, First class with distinction (Aggregate 81.2%)</li> </ul>
SKILLS	C, C++, Matlab, L <sup>A</sup> T <sub>E</sub> X. Experienced in programming on cluster environments, advanced parallel architectures and embedded systems.
ACADEMIC RESEARCH	<p>I have worked on various research projects primarily focused on vision. My methods are guided by statistical learning techniques as well as biological models of learning. I have also worked on developing learning methods specifically for high performance architectures. Highlights include:</p> <ul style="list-style-type: none"> <li>• Currently working on incremental learning methods for classification and object localization which rely on strong prior models learned from very large unlabeled image collections.</li> <li>• Developed efficient generative frameworks for joint unsupervised clustering and foreground localization in images and videos for automatic object discovery.</li> <li>• Developed learning methods for object recognition which are influenced by the cortical-subcortical circuitry design in mammalian brain.</li> </ul>
PROFESSIONAL EXPERIENCE	<p><b>Microsoft Research</b>, Redmond, Washington, USA  <i>Research Intern</i> <span style="float: right;"><b>Summer 2009</b></span></p> <p>Worked on unsupervised web scale clustering of billions of images retrieved through web crawlers using large compute clusters running the Microsoft Dryad platform. Patent application# 20110305399</p> <p><b>Microsoft - Parallel computing platforms</b>, Redmond, Washington, USA  <i>Intern (SDE)</i> <span style="float: right;"><b>Summer 2008</b></span></p> <p>Worked on probabilistic latent topic methods for recognition of 3D surface models. Also investigated parallelization potential of the algorithms developed.</p> <p><b>Huawei Technologies R&amp;D</b>, Bangalore, India  <i>Software Engineer</i> <span style="float: right;"><b>June 2004-July 2006</b></span></p> <p>Worked on network routing protocols, in particular, OSPF. Part of the group that implemented the graceful restart mechanism and dynamic incremental SPT algorithm. August 2005-January 2006, worked at the Beijing advanced R&amp;D center of Huawei.</p>
AWARDS	IBM Cell/BE University challenge 2007 (Programming contest for the Cell architecture) - Grand prize winner. Press release: <a href="http://www-03.ibm.com/press/us/en/pressrelease/22363.wss">http://www-03.ibm.com/press/us/en/pressrelease/22363.wss</a>
SELECTED PUBLICATIONS	<p>Chandrashekar A, and Granger R, “Using scalable object region trees for fast retrieval, object detection and classification”, <i>In preparation</i>.</p> <p>Chandrashekar A, Toressani L, and Granger R, “Learning what is where from unlabeled images: joint localization and clustering of foreground objects”, <i>Under review</i>.</p> <p>Chandrashekar A, and Toressani L, “Learning what is where from unlabeled images”, In <i>Workshop on learning semantics, NIPS</i>, 2011.</p> <p>Chandrashekar A, and Granger R, “Derivation of a novel efficient supervised learning algorithm from cortical-subcortical loops”, <i>Frontiers in computational neuroscience.</i>, Vol. 5, Jan, 2012.</p> <p>Moorkanikara J, Felch A, Chandrashekar A, Dutt N, Granger R, Nicolau A, Veidenbaum A, “Brain-derived vision algorithm on high-performance architectures”, In <i>Int’l Journal of Parallel Prog</i>, 37: 345-369, 2007.</p> <p>Moorkanikara J, Chandrashekar A, Felch A, Furlong J, Dutt N, Nicolau A, Veidenbaum A, Granger R. . (IWIA). “Accelerating brain circuit simulations of object recognition with a Sony Playstation 3”, In <i>International Workshop on Innovative Architectures</i>, 2007.</p> <p>Furlong J, Felch A, Nageswaran J, Dutt N, Nicolau A, Veidenbaum A, Chandreshekar A, Granger R. “Novel brain-derived algorithms scale linearly with number of processing elements”, In <i>Proceedings of the International Conference on Parallel Computing</i>, 2007.</p>