

Geneviève Patterson

CONTACT INFORMATION

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EDUCATION

Brown University, Providence, Rhode Island, USA

PhD in Computer Science, GPA 3.75

September 2010 – Present

- Advisor: Assistant Professor James Hays, Dept. of Computer Science
- Current Research: Computer vision for scene understanding with humans in the loop.

The University of Tokyo, Hongo, Bunkyo-ku, Tokyo

Master of Electrical Engineering

October 2007 – September 2009

- Advisor: Associate Professor Takafumi Koseki, Dept. of Electrical Eng. and Information Systems
- Dissertation Topic: Design and prototyping of a novel high-trust, low-speed transverse flux permanent magnet synchronous motor for application in electric ship propulsion. Sponsored by Hitachi Research Labs, Ibaraki-ken, Japan.

The University of Arizona, Tucson, Arizona, USA

BS Mathematics, BS Electrical Engineering (Hons)

August 2003 – May 2007

PUBLICATIONS

Patterson, G., G. Van Horn, S. Belongie, P. Perona, J. Hays, “Bootstrapping Fine-Grained Classifiers: Active Learning with a Crowd in the Loop,” *NIPS 2013, Crowd workshop*. Lake Tahoe, NV USA. Dec 5-10, 2013.

Patterson, G. T. Lin, J. Hays, “Using Humans to Build Mid-Level Features,” *CVPR 2013, Scene Understanding Workshop*. Portland, OR USA. June 25-27, 2013.

Xiao, J., J. Hays, B. Russell, G. Patterson, K. Ehinger, A. Torralba, A. Oliva, “Basic level scene understanding: categories, attributes and structures,” *Frontiers in Psychology*. August 2013.

Patterson, G., J. Hays, “SUN attribute database: Discovering, annotating, and recognizing scene attributes,” *CVPR 2012*. Providence, RI USA. June 16-21, 2012.

Patterson, G., J. Hays, “Building a Taxonomy of Attributes for Fine-Grained Scene Understanding,” *CVPR 2011, Fine Grained Computer Vision Workshop*. Colorado Springs, USA. June 20-25, 2011.

Patterson, G., T. Koseki, Y. Aoyama, K. Sako, “Simple Modeling and Prototype Experiments for a New High-Thrust, Low-Speed Permanent Magnet Disk Motor,” *Proc. 12th International Conference on Electrical Machines and Systems*, Tokyo, Japan. Nov 2009.

Patterson, G., T. Koseki, “Fundamental Modeling for Optimal Design of Transverse Flux Motors,” *The 2009 Annual Meeting of the IEE Japan*, Vol. 5, pp.17-18, Sapporo, Japan, March 2009.

Koseki, T., G. Patterson, T. Suzuki, “Visual State Feedback Digital Control of a Linear Synchronous Motor using Generic Video-Camera Signal,” *Proc. 11th International Conference on Electrical Machines and Systems*, Wuhan, China. Oct 2008.

Lee K. S., Kim C. S., Kim R. K., Patterson G., Kolesik M., Moloney J. V., Peyghambarian N., “Dual-wavelength external cavity laser with a sampled grating formed in a silica PLC waveguide for terahertz beat signal generation,” *Applied Physics B, Lasers and Optics*, Vol. 87 No. 2. April 2007.

RESEARCH EXPERIENCE

Visipedia Project, Perona Lab California Institute of Technology

Visiting Researcher

May 2013 – September 2013

“Bootstrapping Fine-Grained Classifiers” Hosts: Profs. Serge Belongie and Pietro Perona

Arizona Center for Mathematical Sciences, University of Arizona

Research Assistant

March 2005 – May 2007

“Optical System Simulator” Advisors: Profs. Jerome Maloney and Miroslav Kolesik, and Dr. Marcelo Matus

PROFESSIONAL EXPERIENCE	<p>IBM Corporation, Tucson, Arizona, USA</p> <p><i>Software Developer, Internship</i> May 2005 – September 2007</p> <p>Developed graphical user interface and network statistics graphing software for IBM enterprise class servers.</p>
HONOURS AND AWARDS	<p>National Defense Science and Engineering Graduate Fellowship 2010-2013</p> <p>ICEMS 2009 Conference Award for Outstanding Paper and Technical Excellence</p> <p>Japanese Ministry of Education Monbukagakusho Scholarship 2007 - 2009</p> <p>University of Arizona President's Award for Excellence 2003-2007</p> <p>University of Arizona Provost Scholarship 2003 - 2007</p> <p>First Place, University of Arizona Freshman Engineering Design Competition, Dec 2003</p>
COMMUNITY ACTIVITIES	<p>Summer@Brown 2012 (High school summer program) Guest Lecturer</p> <p>Brown University Artemis Program 2012 Guest Lecturer</p> <p>MIT Splash Program 2010 Instructor, Topic: Trains in Japan</p> <p>English Tutor, Nerima City Community English Club, Nerima-ku, Tokyo, Japan, 2008-2009</p> <p>Math Tutor for Tucson Area ESL Junior High School Students, University of Arizona Future Mathematics Teachers Program, Tucson, AZ, August - December 2002</p> <p>President, Eta Kappa Nu, Iota Xi Chapter, Engineering Honor Society 2006-2007</p>
REFEREES	<p><i>Available on request from:</i></p> <ul style="list-style-type: none"> • Assistant Professor James Hays (Brown University) • Professor John Hughes (Brown University) • Professor Takafumi Koseki (The University of Tokyo)
PROGRAMMING	<p>Python, Matlab, C++, Java, Javascript, L^AT_EX 2_ε, PSpice.</p>
LANGUAGES	<p>English (native), Spanish (fluent), Japanese (conversational).</p>