

# JEREMY SCHIFF

Mobile: (818) 681-9266  
E-mail: jeremy.schiff@gmail.com

## PROFESSIONAL INTERESTS

Machine Learning, Distributed Systems, Probabilistic Modeling, Robotics, Sensor Networks, Computer Vision, Entrepreneurship

## EDUCATION

**University of California, Berkeley** 8/2005 – 6/2009  
**Ph.D. Candidate in Computer Science** Cumulative GPA: **3.96**/4.00  
**Management of Technology Certificate** UC Berkeley Fellow  
**Designated Emphasis in New Media** Outstanding GSI Award Recipient (2007)

CS Classes: Advanced Topics in Computer Systems (A+B), Sensor Networks, Statistical Learning Theory (2 courses), Reliable Adaptive Distributed Systems, Computer Vision (2 Courses), Combinatorial Algorithms and Data Structures, Software as a Service

Business Classes: Project Management, Opportunity Recognition, Entrepreneurship in Biotech, Customer Development, Marketing for High-Tech Entrepreneurs

**University of California, Berkeley** 8/2001 – 5/2005  
**BS Electrical Engineering & Computer Science** Cumulative GPA: **3.85**/4.00  
**Graduated with High Honors** EECS Honor's Society (HKN)  
Honors Every Semester Golden Key Honors Society

## EXPERIENCE

**FotoFlexer.com**, Berkeley, CA 12/2006 - 2/2009  
*Co-Founder, President*

- Responsible for all aspects of the company including strategy, technical development, marketing, advertising, business development, legal, and HR.

**Automation Lab - Research in Network Robotics**, Prof. Ken Goldberg, Berkeley, CA 6/2004 – 7/2009  
*Researcher*

- Perceptive Pallets: Real-time spatial tracking systems for ensuring safety in BioPharma warehouses.
- Actuator Networks: Autonomous navigation of an unobserved robot with active beacons.
- Respectful Cameras: Providing visual privacy to people observed by vision systems.
- StatSense: Framework for sensor-network localization, and distributed sensor-network inference using graphical modeling.
- SNARES: Researched integrating heterogeneous binary sensors into a unified system. The firing patters are aggregated in real-time via Particle Filtering to track an intruder in a room, which we in turn document with a robotic camera.
- Advised undergraduates on Dynamic Panorama Generation, Demonstrate Applet demo and Real-Time Intruder Tracking.
- Designed, implemented, and integrated photo capture program into a robotic webcam used for multi-user collaboration

**Disease Management Services**, Los Angeles, CA 1/2004 – Present  
*Software Architect*

- Developed an Expert System involving parsing a graphical representation of finite automata to provide a medical diagnosis and treatment regimen for HIV/AIDS patients in the third world.
- Implemented prototype which was essential to raise the initial angel capital for the company.
- Supplied ongoing consulting and collaboration to medical and technical team.

**TinyOS – Research in Sensor Networks**, Prof. David Culler, Berkeley, CA 2/2004 – 5/2004  
*Researcher*

- Designed and implemented simulator of new version of Pursuer Evader Game that utilized a detection scheme, sacrificing granularity for frequency of wireless transmissions.

**Harmonia – Research in Programming Environments**, Prof Susan Graham, Berkeley, CA 6/2003 – 2/2004  
*Researcher*

- Ported the Harmonia compiler from Linux to Windows .Net.
- Designed and implemented checking algorithm to verify correct semantics of lexing and parsing files for Harmonia.

## OTHER EXPERIENCE

- Supplied web hosting for small businesses.
- Experienced with Unix/Linux, Windows, Java, C++, C, C#, PHP, MATLAB, HTML, CSS, LISP and SQL.

## DOCTORAL THESIS

- *Structured Tracking for Safety, Security, and Privacy: Algorithms for Fusing Noisy Estimates from Sensor, Robot, and Camera Networks*. Jeremy Schiff. **Doctoral Thesis, University of California, Berkeley**. May 2009

## BOOK CHAPTERS

- *Respectful Cameras: Detecting Visual Markers in Real-Time to Address Privacy Concerns*. Jeremy Schiff, Marci Meingast, Deirdre K. Mulligan, Shankar Sastry and Ken Goldberg, **Protecting Privacy in Video Surveillance Chapter**. Ed. Andrew Senior, Springer. 2009.

## CONFERENCE PUBLICATIONS

- *Nonparametric Belief Propagation for Distributed Tracking of Robot Networks with Noisy Inter-Distance Measurements*. Jeremy Schiff, Erik B. Sudderth and Ken Goldberg **International Conference on Intelligent Robots and Systems (IROS)**. St Louis, Missouri. October 2009
- *Actuator Networks for Navigating an Unmonitored Mobile Robot*. Jeremy Schiff, Anand Kulkarni, Danny Bazo, Vincent Duintam, Ron Alterovitz, Dezhen Song and Ken Goldberg **IEEE Conference on Automation Science and Engineering (CASE)**. Washington DC. August 2008
- *Respectful Cameras: Detecting Visual Markers in Real-Time to Address Privacy Concerns*. Jeremy Schiff, Marci Meingast, Deirdre K. Mulligan, Shankar Sastry, and Ken Goldberg. **International Conference on Intelligent Robots and Systems (IROS)**. San Diego, California. October 2007.
- *Automated Tracking of Pallets in Warehouses: Beacon Layout and Asymmetric Ultrasound Observation Models*, Menasheh Fogel, Nathan Burkhart, Hongliang Ren, Jeremy Schiff, Max Meng, Ken Goldberg. . **International Conference on Automation Science and Engineering (CASE)** . Scottsdale, Arizona, September 2007
- *Robust Message Passing for Statistical Inference in Sensor Networks*. Jeremy Schiff, Dominic Antonelli, Alexandros Dimakis, David Chu, and Martin Wainwright.. **International Conference on Information Processing in Sensor Networks (IPSN)** . Cambridge, Massachusetts. April 2007
- *Automated Intruder Tracking using Particle Filtering and a Network of Binary Motion Sensors*. Jeremy Schiff and Ken Goldberg. **IEEE International Conference on Automation Science and Engineering (CASE)**. Shanghai, China. Accepted July 2006.

## ART EXHIBITIONS

- Baldassari's Bubbles. Institute of Contemporary Art, San Jose, CA. Aug-Sept 2006
- Revolutionary Tides. Cantor Center for the Arts. Stanford, CA. Sep-Dec 2005.
- Alphaville Under Construction. [www.inliquid.com](http://www.inliquid.com), Philadelphia, PA. Sept-Oct 2005
- Making Things Public (online). ZKM, Karlsruhe, Germany, Mar-July 2005
- Artport. Whitney Museum of American Art. Sept 2004