# Joyce Ho

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**EDUCATION**

*University of Texas at Austin*
Currently pursuing Ph.D. in Computer Engineering
Research interests: Machine Learning / Data Mining
Advisors: Dr. Joydeep Ghosh and Dr. Sriram Vishwanath

*Massachusetts Institute of Technology* 2004
M. Eng in Electrical Engineering and Computer Science
B. S in Electrical Engineering and Computer Science

**PROFESSIONAL EXPERIENCE**

*NorthShore University Health System,* 6/2012-8/2012
*Center for Clinical and Research Informatics*
**Project Coordinator, Research**
Create a model to predict a Multiple Sclerosis diagnosis
Developed a cardiac arrest risk prediction model

*Lawrence Livermore National Lab,* 3/2009-8/2011
*Global Security*
**System Engineer**
Developed algorithms to detect anomalous activity in network traffic.
Implemented algorithms on a distributed streaming architecture.

*Lawrence Livermore National Lab,* 9/2004-3/2009
*NIF Integrated Computer Control System*
**Maintenance and Commissioning Tool (MCT) Lead**
Managed a group of 2-3 developers: plan software releases, track schedules, gather incoming tool requests, prioritize work, and address technical issues.
Mentored new team members.
Interviewed candidates for positions within the controls system group.
**System Engineer – MCT team member**
Collected requirements, designed, implemented, and tested software algorithms that automate the calculation and verification of laser system properties.
Collaborated with the image analysis team to leverage existing processing algorithms for use in automation tools.

*Microsoft* 5/2003-8/2003
**Software Development Intern**
Designed and implemented the Device Sync Setup Wizard in Microsoft ActiveSync 4.0.

*Trimble Navigation* 6/2001-8/2001
**Advanced Systems Intern**
Designed the circuit board to interface between a wireless LAN card and the digital board to a SiteNet 900 GPS receiver for real-time collision prevention software.

**ACADEMIC EXPERIENCE**

*Massachusetts Institute of Technology* 8/2003-8/2004

**Research Assistant**

Developed a real-time activity detection system in C++ using two wireless accelerometers, one wireless receiver, and one PocketPC.

Designed a rechargeable battery pack to power the PocketPC and wireless receiver for 8 hours.

*Stanford University, Computer Graphics Department* 6/2002-8/2002

**Research Assistant**

Designed and implemented voice input into the Interactive Workspace project using IBM's voice toolkit and assisted the development of one-bit LED receivers controlled by a remote source.

**PUBLICATIONS**

J. Ho and S. S. Intille, "Using context-aware computing to reduce the perceived burden of interruptions from mobile devices," in *Proceedings of CHI 2005 Connect: Conference on Human Factors in Computing Systems*. New York, NY: ACM Press, 2005, pp. 909 - 918.

J. Ho, J. Fisher, J. Gordon, L. Lagin, S. West, "Java Tool Framework for Automation of Hardware Commissioning and Maintenance Procedures," in *Proceedings of ICALEPCS 2007.* Knoxville, TN, 2007, pp. 547.

G. A. Bowers, R. W. Carey, S. A. Daveler, K. B. Herndon Ford, J. C. Ho, L. J. Lagin, C. J. Lambert, J. Mauvais, E. A. Stout, S. L. West, J. M. Fisher, "User Interface Framework for the National Ignition Facility (NIF)," in *Proceedings of ICALEPCS 2007.* Knoxville, TN, 2007, pp. 146.

J. C. Ho, C. H. Lee, J. Ghosh, "Imputation-enhanced prediction of septic shock in ICU patients" in *HI-KDD 2012: ACM SIGKDD Workshop on Health Informatics*. Beijing, China 2012.

C. H. Lee, N. M. Arzeno, J. C. Ho, H. Vikalo, and J. Ghosh, "An Imputation-Enhanced Algorithm for ICU Mortality Prediction" in *Proceedings of CINC 2012: Computing in Cardiology*. Krakow, Poland 2012.

**SKILLS**

Java, C++ , R, Matlab, Perl, Python, SQL, CORBA, Scheme

**HONORS**

MCD ECE Fellowship (2011), Tau Beta Pi Honors Society, Eta Kappa Nu Honors Society