

EDUCATION

August 2005-
Present **University of Maryland**, College Park, MD
Computer Science Graduate Student. GPA: 3.57
June 2003 **Swarthmore College**, Swarthmore, PA
Bachelor of Arts. Major in Computer Science, Minor in Math. GPA: 3.81 Overall, 3.92 Major

PROFESSIONAL EXPERIENCE

Application Developer **JPMorgan Chase**, New York, NY
August 2003-
June 2005

- Designed, implemented, and tested a new algorithm and additional functionalities for PAT (Platform for Algorithmic Trading), a client-server algorithmic trading application developed in Java. PAT is a reactive system which executes orders based on trading strategies, historical profiles of stocks, and close monitoring of the market.
- Built new features in C# for the PAT front-end application.
- Enhanced web application implemented with Struts to provide an interface for management of users, orders, order routing preferences, and electronic communication network connectivity.
- Gathered business requirements from users on various trading desks. Documented use cases and authored design specifications.
- Tracked project plan and coordinated testing of server-side application with front-end team.
- Prepared usage and status reports for management review. Produced ad hoc reporting and analysis using MS Access, R, and Perl.

Intern **JPMorgan Chase**, New York, NY
Summer 2002

- Improved the performance of Hedgehog, an automated trading application used by equity derivative traders for hedging, by redesigning and developing a Java application that processes execution reports and facilitates straight through processing to middle office.
- Enhanced application that reports daily trading activities on NASDAQ to NASD.

Intern **e-Business Exchange Pte. Limited**, Penang, Malaysia
Summer 2001

- Developed a web-based skills assessment application using JSP, servlets, and JDBC for use in the company's hiring process.

OTHER WORK EXPERIENCE

Teaching Assistant **Department of Computer Science**, University of Maryland, MD
Fall 2005-
Present

- Teach two lab sections for Object-Oriented Programming II.
- Lead discussion sections, help students learn to design, build, test, and debug medium-size Java programs, hold office hours, grade quizzes and exams.

Research Assistant **Department of Computer Science**, Swarthmore College, PA
Summer 2003

- Researched prediction and abstraction mechanisms for unsupervised robot learning.
- Developed a robot control system consisting of self-organizing maps and neural networks for learning and associating sensorimotor data with the environment.

Co-coordinator **Swarthmore Women in Computer Science**, Swarthmore College, PA
Spring 2003

- Co-coordinated a mentoring program for women in computer science.
- Matched students in introductory courses with mentors, and organized various group activities.

Clinician **Department of Computer Science**, Swarthmore College, PA
Spring 2003

- Ran a help clinic to assist students in UNIX and C with programming assignments.

Tutor **Dean's Office**, Swarthmore College, PA
Fall 2002

- Tutored a computer science student on programming fundamentals in C.

Grader **Department of Computer Science and Department of Mathematics**, Swarthmore College, PA
2000-2001

- Graded weekly assignments for UNIX and C (Fall 2001), Discrete Mathematics (Spring 2001), and Linear Algebra (Fall 2000).

PROJECTS

- Term Research Project** **Department of Computer Science**, University of Maryland, MD
Fall 2005
SensoClean: Handling Noisy and Incomplete Data in Sensor Networks using Statistical Modeling
- Collaborated with two graduate students to develop a toolkit that implements Kalman filter and regression modeling, supports data cleaning, interpolation and extrapolation, and provides data analysis tools and visualization.
 - Explored effectiveness of Kalman filter and regression for capturing spatio-temporal correlations and cleaning sensor network data.
- Open Source Project** **Department of Computer Science**, Swarthmore College, PA
Summer 2003
Pyro (Python Robotics)
- Worked on enhancements to the self-organizing map module of Pyro, an open source, python-based, integrated programming environment used in undergraduate and graduate level robotics and artificial intelligence courses.
- Senior Research Project** **Department of Computer Science**, Swarthmore College, PA
Spring 2003
A Minimally Supervised Malay Affix Learner
- Developed a minimally supervised system for learning Malay affixation, using an algorithm that focused on identifying and extracting morphological relationships from text corpora via orthographic analysis, and building an affix inventory via a semantic-based approach.
- Term Research Project** **Department of Computer Science**, Swarthmore College, PA
Spring 2003
Towards Self-Organized Place Recognition
- Collaborated with a fellow student to research place recognition and localization.
 - Developed an artificial neural control system for controlling robot behavior and extracting regularities from time-series sensorimotor information. Used a simple recurrent network to learn motor control, and a self-organizing map to classify the network's hidden states into coherent segments corresponding to a robot's spatial location and behavior.

RELEVANT COURSEWORK

- Computer Science**
- Graduate: Data Management in New Emerging Environments, Natural Language Processing, Machine Learning, Research in Software Engineering.
 - Undergraduate: UNIX and C, Structure and Interpretation of Programs, Algorithms and Object-Oriented Computing, Network Modeling, Operating Systems, Computer Architecture, Compilers, Artificial Intelligence, Developmental Robotics, Theory of Computation.
- Mathematics**
- Calculus, Multivariable Calculus, Linear Algebra, Discrete Mathematics, Combinatorics, Statistics, Abstract Algebra.

AWARDS AND HONORS

- 2005 **Phi Beta Kappa Fellowship**
2005 **Verizon Fellowship** for outstanding academic achievement
2003 **Phi Beta Kappa** national honor society member
2002 **Association for Women in Mathematics** member
2000-2003 **Hajime Mitarai Scholarship** for an outstanding international student at Swarthmore College
1999-2000 **Swarthmore College Scholarship**
1999 **American Universities Alumni of Malaysia Award** for academic excellence
1997 **Informatics Outstanding Student Award** for academic excellence

COMPUTER SKILLS

- OS** UNIX/Linux, Windows, Macintosh
Languages Java, C#, C, Scheme, Python, Perl
Applications R, Eclipse, IntelliJ, Visual Studio .NET