

Cynthia B. Lee

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EDUCATION	University of California, San Diego Ph.D., Computer Science, expected Spring 2008 M.S., Computer Science, 2004 B.S., Computer Science, Literature minor, 2001	<i>La Jolla, CA</i>
AWARDS AND HONORS	National Science Foundation Graduate Research Fellowship Honorable Mention UCSD Summer Graduate Teaching Fellow Cal-IT ² Fellowship Tau Beta Pi Engineering Honor Society	
PROFESSIONAL ACTIVITIES	Doctoral Research Showcase , Supercomputing 2007 (<i>20% acceptance rate</i>) BOF Panel Speaker , "Is 99% Utilization of a Supercomputer a Good Thing?" Supercomputing 2006 (SC06) Co-Chair of Demonstrations 13 th IEEE International Symposium on High-Performance and Distributed Computing, 2004 (HPDC-13) Co-Chair of Women in Computing @ UCSD , founding undergraduate co-chair and later the graduate co-chair Reviewer , Annals of Operations Research 2007, International Journal of High Performance Computing Applications 2006, ACM Euro-Par 2005.	
PROFESSIONAL APPOINTMENTS	Graduate Student Researcher <i>University of California, San Diego</i> 2002-present Recent work addresses the challenges of effective resource management in the high performance computing and grid environments. Current work includes a genetic algorithm based batch job scheduler and explorations of the user experience through observation and surveys of actual users. Past work includes application benchmarking, performance modeling and prediction. Software Engineer and Classifier Team Lead <i>Mohomine, Inc.</i> 2000-2002 Lead a team in investigating and implementing machine learning and information retrieval algorithms, specifically document classification and clustering. Original contributions included a more accurate method of calculating a confidence score for document classification. Parallel Systems Group Intern <i>NASA Ames Research Center</i> 1996-1998 Work included designing a simulator harness for the Portable Batch Scheduler (PBS) product to enable research of new scheduling algorithms for the center's machines.	
JOURNAL ARTICLES	Lee, Cynthia Bailey and Allan Snaveley. "On the User-Scheduler Dialogue: Studies of User-Provided Runtime Estimates and Utility Functions." <i>International Journal of High Performance Computing Applications</i> , 2006.	
CONFERENCE AND WORKSHOP PAPERS	Lee, Cynthia Bailey and Allan Snaveley. "Precise and Realistic Utility Functions for User-Centric Performance Analysis of Schedulers." <i>IEEE International Symposium on High Performance Distributed Computing (HPDC)</i> , June 2007. (<i>20% acceptance rate</i>)	

Lee, Cynthia Bailey, Yael Schwartzman, Jennifer Hardy and Allan Snaveley. "Are user runtime estimates inherently inaccurate?" *10th Job Scheduling Strategies for Parallel Processing (JSSPP)*, in conjunction with SIGMETRICS, June 2004. *Lecture Notes in Computer Science*, Springer, 2005. (Top 1.55% of venues in CiteSeer's impact rankings)

Carrington, Laura, Nicole Wolter, Allan Snaveley and Cynthia Bailey Lee. "Applying an Automated Framework to Produce Accurate Blind Performance Predictions of Full-Scale HPC Applications." *Department of Defense User's Group Conference (UGC)*, Williamsburgh, June 2004.

OTHER REFEREED PUBLICATIONS Lee, Cynthia Bailey. *Parallel Job Scheduling Algorithms and Interfaces*. Ph.D. Research Exam, Department of Computer Science and Engineering, UCSD, May 2004. (for completion of the MS degree)

Lee, Cynthia Bailey, Chris Roedel and Elena Silenok. "Detection and Characterization of Port Scan Attacks." Technical Report, March 2003. (not refereed, but cited in scholarly publications)

Lee, Cynthia Bailey. "ASAPP: Application Scheduling and Performance Portal." Poster. UCSD All-Grad Research Symposium, 2003.

Bailey, Cynthia. "Fast Text Search." UCSD Undergraduate Research Conference, May 1999. (faculty-nominated)

TEACHING

Instructor *University of California, San Diego*
Discrete Mathematics (planned) Summer 2008
Computer Architecture Summer 2007
Computer Processor Design and Implementation Summer 2007

Developed syllabus, presented lectures, created quizzes and exams, assigned homework, graded student work for upper-division undergraduate Architecture and Processor Design courses. Supervised two graduate teaching assistants and instructed ~30 students in each. 100% student approval in both. In Processor Design course, students create their own Instruction Set Architecture (ISA) and design a processor that implements their ISA. Please refer to web address in contact information for links to course websites.

Teaching Assistant Consultant *University of California, San Diego* 2008
Improved quality of undergraduate instruction by observing and consulting with new graduate teaching assistants from all departments of the university.

Teaching Internship *University of California, San Diego* 2007
Taught four lectures of the Introduction to Programming with Java (CS1) course, in addition to performing T.A. duties (discussion, office hours and programming project design).

Teaching Assistant, Research Mentor, Undergraduate T.A., Lab Assistant *University of California, San Diego* 1998-2004

T.A. for the Theory of Computability (automata) course. Mentored Ubiquitous Computing students' term research project. Undergraduate lab assistant for Introduction to Programming, Introduction to Data Structures and Object-Oriented Design, and Computer Organization and Assembly Programming courses.

Curriculum Design *University of California, San Diego* 2004
Participated in a committee to design a new course offering in the Cognitive Science Department (a Fluency in IT course, using LEGO mindstorms robotics).

Transcripts and teaching evaluations available by request.