

Caitlin Sadowski

University of California, Santa Cruz
Computer Science Department
1156 High Street
Santa Cruz, CA 95064

Cell phone: (831) 295-1129
Email: supertri@soe.ucsc.edu

Education

Ph.D. Computer Science, University of California, Santa Cruz, *expected* 2011.

M.S. Computer Science, University of California, Santa Cruz, 2009.

Post-Graduate Foundation Diploma in Art and Design, Cavendish College, London, 2006.

B.A. Mathematics, Colorado College, 2002.

Cum Laude

Minor in Studio Art

Research and Teaching Fields

Programming Languages, Software Engineering, Dynamic Analysis, Concurrency and Parallelism, Education

Academic Experience

University of California, Santa Cruz, Computer Science Department

Teaching Assistant, CMPS 109: Advanced Programming, Wes Mackey, Winter 2009.

Teaching Assistant, CMPS 80J: Technology Targeted at Social Issues, Spring 2008.

Teaching Assistant, CMPS 203: Graduate Programming Languages, Cormac Flanagan, Winter 2008.

Teaching Assistant, CMPS 201: Graduate Algorithms, Allen Van Gelder, Fall 2005.

University of Kansas, Linguistics Department

Lecturer, first segment of Computational Linguistics course. Clifton Pye, Aug. - Sept. 2005.

Research

Thesis Topic: Trace Generalization for Dynamic Analysis

Research goal: Generalize trace-based precise dynamic analyses to find more concurrency errors without introducing false positives.

Publications in Refereed Conferences

SingleTrack: A Dynamic Determinism Checker For Multithreaded Programs, with Cormac Flanagan and Stephen Freund. ESOP 2009.

Publications in Refereed Workshops

SideTrack: Generalizing Dynamic Atomicity Analysis, with Jaeheon Yi and Cormac Flanagan. PADTAD 2009.

Tiddle: A Trace Description Language for Generating Concurrent Benchmarks to Test Dynamic Analyses, with Jaeheon Yi. WODA 2009.

Proving Correctness of a Dynamic Atomicity Analysis in Coq, with Jaeheon Yi, Kenn Knowles, and Cormac Flanagan. WMM 2008.

Unpublished Papers

Structural Type Inference for JavaScript, with Tom Austin, 2009.

A Simple Framework for Understanding Optimal Multiprocessor Hard Real-Time Scheduling Algorithms, with Greg Levin, Ian Pye, and Scott Brandt, 2009.

SimHash: Hashing for File Similarity, with Greg Levin, 2007.

Invited Talks

Formal Talks

SideTrack: Generalizing Dynamic Atomicity Analysis, at Workshop on Parallel and Distributed Systems: Testing, Analysis, and Debugging, 2009.

Velodrome and SingleTrack: Dynamic Atomicity Checking for Multithreaded Programs, with Jaeheon Yi, at Microsoft Research Cambridge, April 2009.

SingleTrack: A Dynamic Determinism Checker for Multithreaded Programs, at the European Symposium on Programming, March 2009.

Proving Correctness of a Dynamic Analysis in Coq, with Kenn Knowles, at the Workshop on Mechanizing Metatheory, September 2008.

Informal Talks

Concurrency Research: Problems and Approaches, with Jaeheon Yi, in CMPS 203: Graduate Programming Languages, January 22, 2009.

Professional Activities

Professional Memberships

ACM, 2005 – Present.

ACM SIGPLAN, 2008 – Present.

ACM SIGSOFT, 2009 – Present.

Conferences Attended

Principles of Programming Languages, San Francisco, January 8–12, 2008.

Programming Language Design and Implementation, Tucson, Arizona, June 7–13, 2008.

Summer School on Logic and Theorem Proving in Programming Languages, University of Oregon, July 22–30, 2008.

International Conference on Functional Programming, Victoria, British Columbia, September 20–24, 2008.

European Symposium on Programming, York, United Kingdom, March 25–27, 2009.

Internships

Software Engineering Intern, Apple Inc., Summer 2007.

Honors & Awards

Fellowships

GAANN Fellowship, University of California at Santa Cruz, 2007–2010

Research Fellowship, Center for Lesbian Health Research, University of California at San Francisco, 2002.

Scholarships

Margaret T. Barnes Scholarship in Mathematics, Colorado College, 1999–2002.

Miscellaneous

Computer Skills

Java, C/C++, OCaml, Haskell, L^AT_EX, Applescript
(Also use Python, Coq, JavaScript, Scala, bash, gnuplot)

Last updated: July 22, 2009