

Ming Kawaguchi

CONTACT INFORMATION

Department of Computer Science and Engineering
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RESEARCH INTERESTS

Program Verification, Cryptography, Security and Privacy

EDUCATION

University of California, San Diego, San Diego, California USA

Ph.D., Computer Science, 2008–present

- Advisor: Professor Ranjit Jhala
- Area of Study: Programming Languages

M.S., Computer Science, 2005–2008 (degree expected: 2009)

- Advisor: Professor Geoffrey M. Voelker
- Area of Study: Security and Cryptography
- GPA: 3.97/4.00

B.S., Computer Science, June 2005

- *Summa cum Laude*
- GPA: 4.00/4.00 UC

AWARDS AND SCHOLARSHIPS

University of California, San Diego

- CK Cheng Scholarship in Computer Science, 2004–2005
- William H. Stout Scholarship, 2004–2005
- Muir Scholar Award, 2005
- Muir Caledonian Society, 2004–2005
- Provost's Honors, 2003–2005

PUBLICATIONS

Ming Kawaguchi, Patrick Rondon, and Ranjit Jhala. Type-Based Data Structure Verification. In *Proceedings of the 31st ACM Conference on Programming Language Design and Implementation (PLDI)*, Dublin, Ireland, June 2009.

Patrick Rondon, Ming Kawaguchi, and Ranjit Jhala. Liquid Types. In *Proceedings of the 30th ACM Conference on Programming Language Design and Implementation (PLDI)*, Tucson, AZ, June 2008.

TEACHING EXPERIENCE

University of California, San Diego, San Diego, California USA

Graduate Teaching Assistant

September 2007 to April 2008

- Graduate Operating Systems – FA'07, WI'08
- California State Summer School for Math and Science (COSMOS): Computer Science cluster – SU'07

Undergraduate Tutor

July 2004 to June 2005

- Advanced Data Structures – SP'05
- Introduction to Algorithms – SP'05
- Compiler Construction I – WI'05
- Principles of Digital Logic Design Theory/Lab – SU'04, FA'04

American Computer Experience, Atlanta, Georgia USA

Summer Camp Counselor

Summer '98, '99

- Taught introductory programming lessons in C/C++ to a mix of elementary, junior high, and high school students.

RESEARCH
EXPERIENCE

University of California, San Diego, San Diego, California USA

Graduate Student Researcher

August 2007 to Present

- Working with Dr. Ranjit Jhala on *Dsolve*, a refinement type inference tool for automatic software verification.

Graduate Student Researcher

April 2007 to June 2007

- Assisted a senior graduate student in optimizing the prototype implementation of a novel online anomaly detection algorithm.
- Utilized Swig, Perl's Inline package, and algorithmic methods to do targeted replacement of runtime bottlenecks.

Graduate Student Researcher

June 2005 to June 2007

- Worked with Dr. Geoffrey Voelker on Fishhook, a modular network anomaly detection plug-in for the Click software router.
- Envisioned as a component of the Potemkin Internet Honeyfarm (SOSP 2006). ~15k lines of C++.

PROJECTS

University of California, San Diego, San Diego, California USA

CSE125: Undergraduate Capstone Project Course

Spring 2005

- Worked in a team of seven to implement a 3D, networked multiplayer video game from scratch in C++ over a ten week quarter.
- Responsible for game logic, code integration, input layer.

REFERENCES

Available upon request.