### Karl T. Voelker

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# **Employment**

Software Development Engineer, Lab126, Cupertino, CA Aug. 2011–Present

• Worked on UI platform to improve user experience, performance, and API

Research Assistant, UW-Madison, Madison, WI Aug. 2010-Aug. 2011

- Worked on system for checking safety properties of JavaScript programs
- Experience in absorbing academic literature and conference presentations

Software Engineer Intern, Microsoft, Redmond, WA May 2009–Aug. 2009

• Performance testing and debugging on certain Windows components

Software Engineering Intern, Truviso, Foster City, CA May 2008–Aug. 2008

- Designed, developed, and tested a new feature on Truviso's flagship application
- Worked with the PostgreSQL database source code

Student Programmer, R.I.T., Rochester, NY Nov. 2006–Nov. 2009

• Developed identity, account, and computer management system

Education

University of Wisconsin–Madison, Madison, WI, Fall 2010–Summer 2011 Graduate student in the Dept. of Computer Sciences, programming languages group

Rochester Institute of Technology, Rochester, NY, Fall 2005–Summer 2010 Graduated Summer 2010 with M.S. and B.S. in Computer Science GPA 3.97; enrolled in Honors Program; National Merit Scholar

### Experience

### M.S. Thesis: "Practical Programming with Total Functions"

- Implemented a Haskell variant in which recursion must be structural
- Advised by Prof. Matthew Fluet
- http://pptf.karlv.net

# Graduate-level computer science courses in:

- Compilers, static analysis, functional programming
- C.S. theory, algorithms, cryptography, parallel computing

#### X11 window manager in Haskell

- Self-taught using X11 manual and other WM source code
- $\bullet \ \, \rm http://ktvoelker.github.com/argon/$

Studied 3-color Ramsey numbers of paths with Prof. Stanisław P. Radziszowski

Systems admin., Computer Science House, Rochester, NY Sept. 2006–May 2009

Technical lecture series given to Computer Science House members

Skills C, C++, C#, Java, Haskell, Perl, JavaScript, HTML, CSS, XSLT, SQL, UNIX/Linux