

## Karl T. Voelker

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<http://karlv.net>

- Employment**
- Research Assistant**, UW–Madison, Madison, WI Aug. 2010–Present
- 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–Present  
Graduate student in the Dept. of Computer Sciences  
Specializing in programming languages and compilers
- 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
  - Analyzed and reported on the challenges and merits of such a system
  - 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
  - <http://ktvoelker.github.com/argon/>
- Investigation of 3-color Ramsey numbers of paths**
- 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, Scheme, Perl, PHP, JavaScript, XSLT, SQL, UNIX/Linux