Daniel Yoo

dyoo@hashcollision.org
http://hashcollision.org/

Education

Bachelor of Science (BS) in Electrical Engineering and Computer Science (EECS) in May 2001 at the University of California, Berkeley. PhD in Computer Science in May 2012 at Worcester Polytechnic Institute. Involved with the PLT research group at Brown University.

Technical Skills

Extensive experience with programming languages since 1995. Proficient in: Racket (Scheme), JavaScript, Java, C, Python, Perl, SQL, as well as Unix adminstration and tools like Emacs, LaTeX, and Git.

Work Experience and Projects

- 2013– Software Engineer at Google. In the Developer Infrastructure group.

- 2012–2013 Postgraduate at the University of Utah. I explored compilation techniques for compiling Racket to Javascript, improved the Racket runtime, and continued to develop the WeScheme programming environment.

- 2010–2013 Developing Whalesong (http://hashcollision.org/whalesong), a Racket-to-JavaScript compiler as part of the Moby and WeScheme projects.

- 2009–2013 Writing and maintaining WeScheme (http://wescheme.org), an online programming environment that provides an editing and runtime environment on the web browser.

- 2009 Wrote the Moby Scheme Compiler (http://www.cs.brown.edu/~sk/Publications/Talks/Moby-Bootstrap/), a compiler from Beginner Student Language to smartphone platforms.

- 2008 Taught for the CitizenSchools program (http://www.citizenschools.org/) at University Park Campus School in Worcester. I used the Bootstrap (http://www.bootstrapworld.org/) curriculum, which teaches math skills by having students program algebraic functions to build a computer game.

- 2007–2008 Wrote the implementation of the *Alchemy* compiler, which takes a software specification written in the Alloy language and produces an implementation. (http://www.cs.brown.edu/~sk/Publications/Papers/Published/kdfy-alchemy-trans-alloy-spec-impl/)

- 2006 Worked with Guillaume Marceau at Brown University for Brown PLT summer session. I released *DivaScheme*, a alternative input interface to DrScheme. (http://www.cs.brown.edu/research/plt/software/divascheme/)

- 2006–2012 Attended graduate school at Worcester Polytechnic Institute, completing a PhD in Computer Science in May 2012.

- 2002–2005 Co-organized the Bay Area Python Interest Group (http://baypiggies.net). I arranged speakers to discuss the Python programming language.

- 2001–2006 Software developer at the Carnegie Institution of Washington. I wrote database-driven web sites and data analysis programs, including the Pubsearch digital publication library project (http://pubsearch.org). I contributed to the GMOD sourceforge project. (http://gmod.sourceforge.net)

- 2001 CS3 Teaching Assistant. I led discussions in UC Berkeley's introductory Scheme class (CS3), answered questions in office hours, wrote homework and laboratory solutions, and maintained the computer labs.

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- 2000 Software Developer for `medbiz.com` (`http://www.medbiz.com`). I helped develop `medbiz.com`'s web site using the IBM Websphere Commerce Suite. The experience included: implementing business logic with C++ and IBM's Net.Data, writing Secure Socket Layer (SSL) scripts, and developing SQL database programs.

- 2000– Python Tutor. Tutoring for the `python-help@python.org` and `tutor@python.org` mailing lists. (`http://mail.python.org/mailman/listinfo/python-help/`, `http://mail.python.org/mailman/listinfo/tutor/`) I provided technical support and answered questions about Python installation and program development. I also helped programmers learn about the Python standard library, and wrote modules to demonstrate programming techniques and style. I was one of the core mailing list administrators of Python-tutor from 2001–2006.

- 1999–2000 Group Tutor for the SPC. I taught programming to students at UC Berkeley's Self Paced Center (SPC), tutoring the following classes: Scheme (CS3), Fortran (CS9A), C (CS9C), Advanced Scheme (CS9D), UNIX (CS9E), C++ (CS9F), and Java (CS9G). I organized help sessions, administrated mailing lists for classes, and answered individual student questions.

- 1998 Software Developer. I wrote an in-house prototype implementation of the Stable Marriage Algorithm for use in the EECS Internship Program. I also wrote an in-house Exam Checkout application for Eta Kappa Nu's (HKN's) Exam Files department.