

Matthew Hielscher

Portfolio, GitHub, and social media at: <http://www.wasabiflux.org/mhielscher@gmail.com>, (818) 389-4254

WORK EXPERIENCE

Junior Programmer *FileYourTaxes.com* June 2005 – May 2006

- Developed e-filing logic and interface in Perl to match state tax return specifications.
- Built an extension to tax preparation system to allow on-the-fly extraction of compressed archived client data across a distributed network of servers.
- Designed secure network device to function as a firewall and safe fileserver for sensitive data. Implemented redundant security features, automatic proprietary software updates, and web configuration interface.
- Developed web server log analysis tool with PHP and Perl.
- Managed workstations and server running Red Hat Enterprise. Managed Apache, NIS, and Samba.

Contributor *Marathon Open Source Project* March 2000 – July 2003

- Implemented the *Lua* scripting language in the open source game engine Aleph One to allow greater scenario creation control.
- Added graphical enhancements: expanded resolutions, fog effect control; and XML configuration options.

PROJECTS

Simplebot *Python* September 2009 – February 2010

IRC utility bot for channel moderation and information reference, with access to Google, Wikipedia, and pastebin.com. Runtime loadable command modules, user authentication and access levels, XML configuration.

Robot Arena *C++, Java* October 2008 – December 2008

Simulation of intelligent competitive agents using various AI algorithms and parameterization improved by genetic algorithms. Graphical interface in Java, backend in C++.

EigenMaze *Java* January 2005 – March 2005

3D OpenGL networked game engine. Included deathmatch and capture the flag modes. Designed and developed from scratch over 10 weeks in a team environment. Totaled over 10,000 lines of code.

DISTINCTIONS AND ACTIVITIES

- Ranked 5th of 49 teams in 2008 Southern California Regionals of the ACM International Collegiate Programming Contest. Top 10 in 2004.
- Organized and administered 2005, 2006, 2008 UCSB ACM Programming Contests.
- Placed 2nd in PuzzleCrunch 2006, hosted by UIUC. Participated in Puzzlecrack 2005, 2006.

EDUCATION

Bachelor of Science, Computer Science
University of California, Santa Barbara

104 of 132 major quarter-units completed
2003 – 2009