

Matthew Hielscher

Portfolio, GitHub, and social media at: <http://www.wasabiflux.org/>
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WORK EXPERIENCE

Freelance Programmer *Self-employed* November 2012 – present

- Designed and built Pictoral.org Facebook search engine, including indexer and crawlers.
- Wrote batch YouTube search scraper to keep accurate view counts on AlexanderPerls.com.
- Added parsing for older XML and APS formats of patent grant data to existing parser script.

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 NIS with Samba.

PROJECTS

Aggr *Django* September 2012 – present
Web application for aggregating, filtering, and reading RSS and Atom feeds. Inspired by the need to track job postings across many sites.

Simplebot *Python* September 2009 – February 2010
IRC bot for channel moderation and 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. GUI 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 an Agile team environment.

Aleph One *C++* March 2000 – July 2003
Implemented the *Lua* scripting language in the game engine to allow greater scenario creation control. Added graphical enhancements: more resolutions, fog effect control; and XML configuration options.

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

Various certificates 3 courses w/ Highest Distinction, 1 course w/ High Distinction
Udacity, <http://www.udacity.com/> 2012 – present

Bachelor of Science (inc.), Computer Science 148 of 180 units completed
University of California, Santa Barbara 2003 – 2009