SCOTT D. FRAZER

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EDUCATION

University of Massachusetts Amherst · Bachelor of Science in Computer Science, 2007 · GPA: 3.68/4.00

WORK HISTORY

Blue State Digital (February 2010 - present)
Web Developer

- Developed content management tools gearted at non-profits and political candidates.
- Worked with one other developer to internationalize and localized all of our software, broadening our potential client base.
- Developed in **PHP**, **MySQL**, **JavaScript**, **CSS**, and **Apache 2**.
- Worked with very large databases in the millions and sometimes billions of rows.
- Developed XML/JSON APIs to provide a secondary interface to our datasets.
- Implemented OAuth 2.0 and built a login system for barackobama.com and democrats.org which allows users to log in with Facebook or other external accounts.
- Worked on page load performance metric gathering. Developed a CLI application to gather and analyze page load performance metrics. Source code is available at https://github.com/bluestatedigital/pageload.
- Developed a CLI and client library for accessing our API. Source code is available at https://github.com/bluestatedigital/bsdapi.
- Developed many sophisticated JQuery UI widgets to enhance user experience.

EMC Corporation (August 2007 - February 2010)
Software Engineer II

- Worked in the core API team for EMC's flagship product, the **Symmetrix**.
- Developed APIs and CLIs for interacting with the Symmetrix for Remote Data Facilities (RDF)
- Programmed mostly in **C** and **PERL**.
- Experience with version control software (**CVS**).
- Developed some tools in **Python** for internal use which were used by the entire team.
- Worked on and maintained four products in my time at EMC, most of which were initially written by other developers and needed features and functionality added for new releases.
- Interacted with QA and indirectly with customers to resolve issues in a timely fashion.
- Developed in a team environment and modified code that was maintained by many different people.
- Strong understanding of enterprise storage technologies.

Edgemere Consulting (March 2008 - present)
Web Application Consultant

- Solely developed two web applications from the ground up.
- Utilized **PHP**, **MySQL**, **Microsoft SQL Server 2008/2005**, **XHTML**, **CSS**, and **Apache 2**.
- Web application was developed for maximum end-user flexibility and configuration.
- Developed an MVC framework for the client to allow for easy future expansion.
- I developed specifications, provided QA, and delivered the product.

Mercury Computer Systems, Inc. (Summer 2006)
Software Engineer Co-op

- Mercury was transitioning their software from a homegrown kernel to a GNU/Linux
- As a result of the transition, much of the API changed and the example code was deprecated
- I migrated over old example code to the new API and wrote new example code for new API.
- Worked extensively with **C programming**, BSD Sockets, UNIX, and concurrency programming.
- Experience with version control software (ClearCase)

RECENT PROJECTS

Hermes *Python 3 Parser Generator*

- Started work in December 2010. Development continues today.
- I started this project because there are very few good resources for parser generators that are practical for developing a programming language.
- To solve this problem, I developed a hybrid parsing method that uses LL(1) parsing in conjunction with expression-based parsing. This allows for the flexibility needed to parse complicated languages
- Unit tested with Python's unittest module
- Source code available at https://github.com/scottfrazer/hermes.
- Documentation available at http://hermes.readthedocs.org/en/latest.

cAST *C Preprocessor and Parser*

- Developed alongside **Hermes** in order to ensure that Hermes was capable of parsing a real language.
- Currently, it parses and executes C99 preprocessor and tokenizes the C code. Full parsing of C99 is currently in development.
- The parsers used are generated by Hermes.
- Unit tested with Python's unittest module

- Source code available at https://github.com/scottfrazer/cAST.

Skills Summary

- Proficient in C, PHP, Java, Python, SQL, JavaScript, Vim, Git, Linux, Mac OS X, Javascript
- Familiarity with CSS, C++, PERL, Apache 2, Emacs, Git, Subversion, CVS