

WORK EXPERIENCE

Deep Information Sciences

September 2015 to May 2016

Core Engineer

Worked as a core engineer on an adaptive, highly parallel database engine under MySQL. Independently implemented native partitioning handler for feature parity with MySQL. Identified pair of internal performance optimizations and authored solutions for measurable gains. Smaller projects include a cross-platform system assessment tool (Python, C++), a multi-function benchmark (bash), and establishing an internal knowledge base.

Wayfair

October 2013 to August 2015

Engineer III

DevOps engineer on a small team. Projects included architecting a scalable StatsD/Graphite cluster using Puppet configuration management; statsdcc, a multi-threaded lock-free C++11 implementation of StatsD; hussar, a bash script for PHP static analysis using HHVM; smudge, a compressed DAWG in JavaScript indexing 1M metrics.

athenahealth

May 2011 to March 2013

Software Developer

Led development on claim resolution tool involving distributed processing of large datasets using Perl and Oracle SQL. Independently developed internal source-code search tool that was adopted by other developers.

Indiana Wesleyan University

September 2008 to December 2011

Web Programmer

Developed secure web forms within the C# .NET framework. Worked on a small team to completely rebuild the multiple internal and external university web sites. In Fall 2010, independently developed a Student Jobs application, complete with MSSQL database, full text search, and template based content administration.

Museum of Science, Boston

May to August, 2010

Information Systems Internship

Worked with the Software Team on the museum web site. Independently developed a pair of C# GUI applications that gathered, parsed, and organized data collected by the museum's five wind turbines.

INDEPENDENT PROJECTS AND CHALLENGES

- *mezzo*: Minimal, from scratch operating system for x86-64 written in Rust
- *rustc*, *coreutils*, *cmake-rs*: Several contributions merged into Rust core and related projects
- *git-browse*: Repository commit browser using JavaScript, GitHub API, AWS, oauth
- *seaways*: Web static resources crawler written in Ruby; test-driven using rspec
- *eudypytula challenge*: Series of tasks related to Linux kernel and driver development
- *matasano crypto challenge*: Challenges covering fundamental and advanced cryptography

EDUCATION

Indiana Wesleyan University

December 2011

Majors: Mathematics; Computer Software Engineering

3.84 cumulative GPA

Notable Courses: Programming Languages, Systems Analysis and Design, Object Oriented Programming**SKILLS AND INTERESTS**

- Linux kernel, Rust/LLVM compiler development
- GNU/Linux technologies: zsh, tmux, vim, git
- Programming languages: Rust, C/C++, Ruby
- Open source and free software movements
- Camping and hiking; cycling
- Cooking, music, photography, reading