Ross M. Bayer

ross.m.bayer@gmail.com — (585) 210-8071

Education

Rochester Institute of Technology August 2012 - Present
Major: B.S./M.S. Computer Science
Expected Graduation: December 2018
GPA: 3.2

Technical Skills

Proficient Languages: C, Go, Java, Python, Ruby, Standard ML
Familiar Languages: Haskell, JavaScript, Prolog, Rust, Scheme
Operating Systems: Linux (Arch and Debian based), Mac OS X
Tools: Git, LaTeX, Make, CMake, Regular Expressions, Vim

Experience

Rochester Institute of Technology February 2016 - Present
Reserach Assistant `https://mlton.org`

Re-implementing MLton's build system to support modern architectures and techniques and improving overall build quality. Switching from GNU Make and small number of handwritten build scripts to a CMake build system.

Hudl June 2015 - December 2015
Software Development Intern `https://hudl.com`

Worked primarily on internal backend tooling for software deployment and alert monitoring. Created two open-source Go packages to interface with PagerDuty and Postmark's RESTful APIs.

Rochester Institute of Technology February 2015 - May 2015
Research Assistant `https://mlton.org`

Learning about the general structure and implementation strategies of compilers.
Implementing a general-purpose annotation system for the **MLton compiler**.

Personal Projects

adhoc-prologmorphism February 2016 - Present
Independent Study on Adhoc-Polymorphism `https://github.com/Rostepher/adhoc-prologmorphism`

A collection of documents and interpreters from my independent study on Adhoc-Polymorphism in Hindley-Milner type systems.

brainfuck December 2014 - Present
Optimizing Brainfuck Interpreter `https://github.com/Rostepher/brainfuck`

An **interpreter** for the esoteric, turing complete programming language **Brainfuck** written in **Rust**, utilizing a number of **optimization strategies** to exponentially decrease the number of operations and subsequently the execution time of Brainfuck programs.

libstrcmp June 2014 - December 2014
String Distance Metric C Library `https://github.com/Rostepher/libstrcmp`

An optimized **C library** dedicated to fast implementations of various **string distance** and **phonetic metrics** used in **natural language processing** and **fuzzy string matching**.

mget June 2014
Manga Scraping Ruby Utility `https://github.com/Rostepher/mget`

A Ruby utility to **scrape manga chapters** from online sources and then packages each chapter in a cbz (comic book zip) archive.

Extracurricular Clubs & Activities

Computer Science House (CSH) `https://csh.rit.edu`
Alumni Memeber

A special interest house with a focus on project-based education in the field of computer science and its related sub-fields.