Ross M. Bayer

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EDUCATION

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

August 2012 - Present

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
Reserach Assistant

February 2016 - Present
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
Software Development Intern

June 2015 - December 2015
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
Research Assistant

February 2015 - May 2015
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
Independent Study on Adhoc-Polymorphism

February 2016 - Present
https://github.com/Rostepher/adhoc-prologmorphism

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

bfi
Optimizing Brainf*** Interpreter

December 2014 - Present
https://github.com/Rostepher/bfi

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

libstrcmp
String Distance Metric C Library

June 2014 - December 2014
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
Manga Scraping Ruby Utility

June 2014
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)
Alumni Memeber

https://csh.rit.edu

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