Ross M. Bayer

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Rochester, NY 14623 github.com/Rostepher (757) 604-4736 linkedin.com/in/Rostepher

Objective Seeking a 3 or 6 month co-op or internship beginning in either Summer 2015 or Fall 2015.

EDUCATION Rochester Institute of Technology August 2012 - Present

Major: B.S. Computer Science Expected Graduation: May 2017

TECHNICAL SKILLS Proficient Languages: C, Java, Python, Ruby, Rust

Farmiliar Languages: Haskell, JavaScript, Scheme, Standard ML Operating Systems: Linux (Arch and Debian based), Mac OS X

Tools: Git, LATEX, Make, Regular Expressions, Vim

EXPERIENCE Rochester Institute of Technology

February 2015 - Present https://mlton.org

ross.m.bayer@gmail.com

Research Assistant

Currently working as a research assistant for Professor Fluet on the **Standard ML**, whole-program optimizing compiler **MLton**; developing a general-purpose annotation system for attaching arbitrary information to nodes in the Abstract Syntax Tree (AST) that the compiler can utilize.

RockTenn

July 2014 - August 2014

IT Intern

https://rocktenn.com

Worked on a JavaScript extension for the BI tool QlikView that aggregated valid geolocation data from the database and mapped points of interest and other relevant information on an interactive map using the popular OpenLayers library and Open Street Maps. Also wrote Python scripts to geocode addresses and store the results in the database using the pyodbc module and SQL.

PERSONAL PROJECTS 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**. It utilizes a number of **optimization strategies** to exponentially decrease the number of operations and subsequently the execution time of Brainfuck programs. It also supports emitting optimized internal Intermediate Representation (IR), optimized C code, or optimized Rust code.

libstrcmp June 2014 - December 2014

 $String\ Distance\ Metric\ C\ Library \\ \\ \texttt{https://github.com/Rostepher/libstrcmp}$

An optimized C library dedicated to fast implementations of various string distance metrics, including the Levenshtein distance and the Jaro-Winkler distance, as well as other phonetic metrics used in natural language processing and fuzzy string matching.

mget

Manga Scraping Ruby Utility

June 2014 - Present

https://github.com/Rostepher/mget

A Ruby utility to **scrape manga chapters** from the multiple online sources, using the ruby gem Nokogiri for HTML parsing, and then package the images in a cbz (comic book zip) archive for easy reading on the go.

EXTRACURRICULAR CLUBS ACTIVITIES

FOSS@MAGIC

https://magic.rit.edu/foss

 $Active\ Member$

A group dedicated to Free and Open Source Software (FOSS) located inside the MAGIC Center, formerly the Innovation Center, that sponsors numerous projects, hackathons and meetings for like-minded students.

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.