# **JOSHUA ROBBINS**

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References available upon request.

## **EDUCATION**

- Rochester Institute of Technology: 2014-2019
- Attending for dual BS/MS degree in Computer Science
- Member of RIT Computer Science House
- Finished past 4 consecutive semesters with Dean's List status; current cumulative GPA is 3.57

## **CURRENT COURSEWORK**

- Introduction to Computer Graphics
- Advanced Programming Skills in Haskell
- Advanced Programming Skills in C++
- Introduction to Big Data
- Critical Social Theory

## **SKILLS**

- Proficient in:
  - Java
  - C / C++
  - Lua
  - Scheme
- Familiar with:
  - Python
  - Haskell
  - Shell scripting
- Tools used include:
  - Version control: SVN and Git
  - Build systems: Apache Ant, Gradle, Make
  - IDEs: NetBeans, Eclipse
    - (including plugin development)
  - Database systems: MySQL, MongoDB
  - C verification tools: Frama-C, ACSL
  - Software verification frameworks: Why3, Alt-Ergo, Z3, OpenJML
  - Tools for compilers: lex/yacc, the LLVM framework

### **WORK EXPERIENCE**

- GrammaTech, Inc. Software Engineering Intern
  - Summer 2015:

- Implemented a version of libc with added annotations for code verification tools
- Researched and documented various standards for C standard libraries
- Summer 2016:
- Employed automated code verification tools
- Wrote tools to translate code into verifiable models (see WhyR below)
- Summer 2018:
- Refactored a large production codebase to use a modern Scheme compiler

#### **PROJECTS**

## • WhyR

- A tool for converting LLVM IR into a model verifiable by Why3, with included annotation language
- Made as part of internship at GrammaTech
- https://github.com/AnnotationsFor All/WhyR

## TextX

- A modern terminal text editor written in C++ and using Curses
- Currently under development; current features include split/tab panes, syntax highlighting, mouse support
- https://github.com/iconmaster5326/ TextX

## • Typhon

- A bytecode-compiled, generalpurpose, object-oriented programming language written in Java
- Supports multiple inheritance, multiple returns, type inference, operator overloading, generics
- o Includes Eclipse plugin
- https://github.com/TyphonLang/ Typhon