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# JOSHUA ROBBINS

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<http://iconmaster.info/>  
References available upon request.

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## EDUCATION

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- **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

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## CURRENT COURSEWORK

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

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## SKILLS

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

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## WORK EXPERIENCE

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- **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

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## PROJECTS

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- **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/AnnotationsForAll/WhyR>
- **TextX**
  - A modern terminal text editor written in C++ and using Curses
  - Currently under development; planned features include clipboard support, tabs/split panes, find/replace, syntax highlighting
  - <https://github.com/iconmaster5326/TextX>
- **Typhon**
  - A bytecode-compiled, general-purpose, object-oriented programming language written in Java
  - Supports multiple inheritance, multiple returns, type inference, operator overloading, generics
  - Includes Eclipse plugin
  - <https://github.com/TyphonLang/Typhon>