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Joshua Robbins

Software Engineer

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SKILLS

Languages	Assembly (x64, z80), C, C++, C, CSS, Dart, Haskell, HTML, Java, JavaScript, Lua, Python, Scheme, TypeScript
Tools	Apache Ant, CMake, Git, GitLab CI/CD, GNU Make, Gradle, JetBrains MPS, SMT solvers (Z3, AltErgo, Why3), Unity, Unix, Visual Studio Code
Specialties	binary rewriting, compiler construction, formal verification, IDE plugin development, programming language design, static analysis
Communication	English

PROJECT SUMMARY

BinaryGen	MPS	A language providing an aspect that allows you to generate binary files from concepts instead of text files
DataFormats	MPS	A language providing support for common data file formats
GTIRB	C++, Python	A format for storing information about binary files and related binary rewriting tools
WhyR	C++	A formal verification engine for LLVM IR

RECENT WORK EXPERIENCE

Software Engineer II

Grammatech Inc

June 2019 — May 2022

Ithaca, NY, USA

- Engaged in three internships previous to employment producing
 - Specifications for formal verification of C programs using libc
 - Formal verification systems for multiple languages
 - Frameworks to modernize code in Grammatech's core product, CodeSonar
- Developing automatic binary and source code rewriting solutions
- Improving production-readiness of academic projects
- Helping fulfill multiple government contracts

Software Engineer

Clario

April 2022 — Present

Estenfeld, Germany (remote)

- Developed domain-language solutions for clinical trial software
- Researched and utilized new domain-specific language technologies
- Aided in several major releases of upcoming Clario product

EDUCATION

Bachelor of Computer Science, *Rochester Institute of Technology*

April 2019

Master of Computer Science, *Rochester Institute of Technology*

April 2019

HOBBIES

creative writing, hiking, tabletop RPGs, trading card games, video game design/development