Russell McClellan

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Profile

I am a professional software developer and amateur electronics tinkerer interested in synthesizers, programming languages, mathematics, and other tools for creative expression.

Technical Skills

- Programming - 6 years professional experience with C/C++ (including C++11), 1 year JavaScript (CoffeeScript)
- DSP algorithms - especially audio effects and musical synthesis
- Debugging and optimizing software at the x86/amd64 assembly level
- Embedded programming - C, AVR, ARM, and x86 assembly

Work Experience

2009-   Software Developer, Mark of the Unicorn, Cambridge, Massachusetts

- Developed browser-based mixing board control software using Coffeescript
- Researched novel techniques for high-quality time stretching of audio
- Created and expanded tools for musicians on Mac and Windows using C++

2008   Software Intern, Line 6, Calabasas, California

- Developed embedded C code for a portable sound recorder
- Used ARM assembly to explore guitar processing on portable devices

2006-2009 Teaching Assistant, Caltech, Pasadena, California

- CS 2. Introduction to Programming Methods - An introductory CS class in Java
- CS 171. Introduction to Computer Graphics - C++ graphics with and without APIs
- CS 101 Special Topics in Computer Science - General Purpose GPU Programming

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Education

2009   B.S. in Computer Science, California Institute of Technology, Pasadena, CA. GPA 4.0

Technical Hobbies

- Programming Languages (in particular Coq and Haskell)
- Analog electronic design, especially voltage-controlled and other musical circuits
- Mathematical Logic, Set Theory, Foundational Math
- Coursera - Principles of Reactive Programming (2014, with distinction), Machine Learning (2011, 100%)