Eliza Weisman

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I'm a computer scientist, engineer, and researcher. I love solving interesting and challenging problems, learning new things, and making neat stuff. My primary interests are programming languages, systems programming and operating systems, and tools for software engineering.

Skills

I have a lot of experience with functional programming techniques in a number of languages, and a focus on writing high-quality, idiomatic code. I'm also familiar with modern software development techniques, practices, and tools, and I've worked in a number of areas, such as web development, programming languages, and systems programming. Some of my favourite tools include:

Languages	*Fluent in* Scala, Rust, Python, and Java; *familiar with* Haskell, Clojure, C, and R
Libraries	*Frameworks:* Scalatra, Bootstrap,Polymer; *testing:* ScalaTest, ScalaCheck, QuickCheck, JUnit, Mockito; *other:* Akka, Slick
Toolchain	*Build systems:* Gradle, SBT, Ant, Cargo, Make; *editors and IDEs:* Atom, SublimeText, IntelliJ IDEA; *collaboration:* GitHub, GitLab, Jenkins, Travis

Education

I'm pursuing a Bachelor of Science in Applied Computing with a focus in Software Engineering. My coursework has included:

Data Structures and Algorithms	Analysis of Algorithms
Computer Organization	Operating Systems
Principles of Software Engineering	Data Communication and Networks
Principles of Data Management	Introduction to Compiler Design
Programming Language Implementation	Robotics and Multi-Agent Systems

B.S. in Applied Computing
Allegheny College, Meadville, PA
Expected May 2016
GPA:3.67

Experience

Wrote a simple operating system kernel for x86_64, primarily in Rust, to learn more about OS design and development. Implemented a bootloader in x86 assembly, and interrupt handling, memory allocation, VGA console and PS/2 keyboard drivers, and other operating system features in Rust.

Fall 2015 — Ongoing
Personal Project
`https://github.com/hawkw/sos-kernel`

Cofounded a small business to develop and publish independently developed computer games, and designed and implemented a game engine in Scala, contributing over 9,000 lines of Scala source code to the project.

Spring 2014 — Ongoing
MeteorCode Laboratories
`https://github.com/meteorcode/pathway`

Designed and implemented Mnemosyne, a new functional language intended for systems programming, implementing a compiler in Rust using LLVM, and wrote a language specification.

Fall 2015 — Ongoing
Senior Thesis
Allegheny College
`https://github.com/hawkw/mnemosyne`

Designed and implemented Seax, a virtual machine-based runtime for programs in functional languages. Wrote the VM and a compiler for Scheme programs in Rust.

Spring 2015
Independent Study Allegheny College
`https://hawkweisman.me/seax`