

## Hawk Weisman

February 16, 2016

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.

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## 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	<i>Fluent in</i> Scala, Rust, Python, and Java; <i>familiar with</i> Haskell, Clojure, C, and R
LIBRARIES	<i>Frameworks:</i> Scalatra, Bootstrap, Polymer; <i>testing:</i> ScalaTest, ScalaCheck, QuickCheck, JUnit, Mockito; <i>other:</i> Akka, Slick
TOOLCHAIN	<i>Build systems:</i> Gradle, SBT, Ant, Cargo, Make; <i>editors and IDEs:</i> Atom, SublimeText, IntelliJ IDEA; <i>collaboration:</i> 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	Computer Organization
Principles of Software Engineering	Operating Systems
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>