Akhil Indurti

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akhil.cc
github.com/smasher164

EDUCATION

University of Virginia (B.S. in Computer Science) Expected Fall 2019

Relevant Courses: Operating Systems, Advanced Computer Architecture, Graduate Compilers, Machine Learning, Computer Graphics, Capstone Research, Algorithms, Theory of Computation, Program Data and Representation

SKILLS

Languages **C**, **Go**, C++, Assembly, Java, Python, Javascript, Haskell, Scheme, Wolfram Language, Shell, SQL, LaTeX.

Tools LLVM toolchain, Go toolchain, OpenGL, Git, Unix, Docker, Kubernetes, SQLite, nginx, Android, Adobe Creative Suite, QEMU, AWS, GCP, DigitalOcean.

PROJECTS

Go Member who contributes patches, triages issues, and reviews code (**FMA intrinsic**).

arvo A Statically-Typed Memory-Safe Programming Language.

mem A memory allocator for Go.

mexdown An extensible human-readable plain-text format.

eggsy A sandboxed execution environment.

matcher A regular expression engine.

EXPERIENCE

Teaching Assistant *University of Virginia*, Spring 2018 - current

- ***Theory of Computation***: Course covers automata theory, complexity theory, and problem-solving techniques. I assist in grading, holding office hours, and supervising problem-solving sessions. I developed a new Turing Machine Simulator assignment (tmsim.akhil.cc).
- ***Program Data and Representation***: Course covers C++, data structures, and assembly. I assist in grading, holding office hours, and running lab. I developed a new Tree lab that introduces AVL trees.

Capstone Project *CS 4980*, Fall 2018 - Spring 2019

I worked under Professor Brunelle on a compiler and toolchain for a language called *arvo*, that is statically typed (Hindley-Milner type system) and memory-safe (reference counting with incremental cycle detection).

HSPC Head Judge *ACM*, Fall 2018 - Spring 2019

Along with assuming the role of an ACM officer, I helped organize and develop problems for the High School Programming Contest (HSPC).

Research *Center for Automata Processing*, Fall 2017 - Spring 2018

I worked to explore the application and implementation of state machines. Under my advisors Professor Kevin Skadron and Jack Wadden, *my research* focused on developing and implementing an NFA reduction algorithm to perform prefix and suffix merging in VASim.

Android SDK @ Palo Alto, CA *TRNQL*, January - August 2015

Worked to enable easy integration of contextual information into an application. Created example applications for clients to study, and led meetups to introduce the community to these SDK features.

Software Engineering Intern @ Milpitas, CA *FireEye*, Summer 2014

Implemented a web application for the management and education on the company's security products.

- Wrote a web application to educate, display, and manage the new intrusion prevention system.
- Developed a real-world understanding of network security in the context of large organizations.