Akhil Indurti

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EDUCATION

University of Virginia (B.S. in Computer Science) 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, SML, Rust, Racket, Shell, SQL, LaTeX.

Tools LLVM & Go toolchains, OpenGL, Git, Docker, Kubernetes, Nix, GraphQL, Android, Adobe Creative Suite, QEMU, AWS, GCP, DigitalOcean.

PROJECTS

Go Member who contributes patches, triages issues, and reviews code. Worked on fused-multiply-add, static analysis checks, and playground.

mem A memory allocator for Go.

mexdown An extensible human-readable plain-text format.

EXPERIENCE

Software Engineer *Comcast*, May, 2020 - current

Working on Comcast's Next Generation Access Network (NGAN) to build Genome, a poller for millions of network devices across the country.

- Implemented a connection pool that significantly sped up the long tail of our polling cycle, and cut AWS costs.
- Led a testing & deployment strategy to discover test devices and monitor health statuses.
- Detected incompatible changes to GraphQL and Avro schemas.
- Improved and hired talent to improve code quality and CI infrastructure.

Research Assistant *ShiftLab*, Jan, 2020 - May, 2020

Worked under Professor Samira Khan to find crash-consistency bugs via structured fuzzing, as well add support for persistent memory to the Go programming language.

Teaching Assistant *University of Virginia*, Spring 2018 - Spring 2019

- ***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.
- ***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.

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.