

Naman Sood

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SKILLS

Languages JavaScript, Go, Rust, C++, C, Scala, HTML5, CSS3, Bash, Racket, Python
Technologies Linux, Git, Docker, AWS, Nginx, Apache, gRPC, React, SQL, MongoDB, Firebase

EXPERIENCE

Tailscale

Jan 2021 – Apr 2021

Software Engineering Intern

- Boosted compatibility with cloud environments by providing in-process network infrastructure, using Google gVisor sandbox.
- Enabled simple, standard communication for programs over Tailscale network by creating a SOCKS5 proxy server in Go.
- Simplified deployment of Tailscale in containers by creating ephemeral authentication keys with auto-cleanup mechanism.
- Secured continuous integration and deployment pipelines by creating GitHub Action to allow workflows to use Tailscale.
- Expanded outreach with technical community by writing long-form content for corporate blog and knowledge base.

University of Waterloo

May 2020 – Aug 2020

Research Associate, Sirius Blockchain Research Group

- Hardened security by enforcing BLS signature verification for Byzantine fault tolerant distributed consensus system in Go.
- Streamlined deployment of project, using Docker images to generate repeatable builds across diverse environments.
- Unified similar codebases by migrating components to a single project to reduce code duplication, using C++.
- Assisted distributed systems research by conducting experiments on AWS and analyzing performance data using gnuplot.

Creescync Software

May 2019 – Aug 2019

Software Engineering Intern

- Simplified professional photography, by building native apps to deliver photos to clients, using Electron and React Native.
- Designed and deployed API to upload and preview photos in low-bandwidth situations, using Node.js and AWS S3.
- Reduced technical debt in React Native project by combining similar functionality into reusable components.

The Girl Code

Mar 2018 – Apr 2020

Full Stack Developer

- Empowered school children by creating online platform to learn Python programming, using Node.js and MongoDB.
- Assisted research by tracking usage of learning platform to collect data for National University of Singapore study.

PROJECTS

CHIP8-rust Rust

Emulator for CHIP-8 microprocessor. Simulated behavior of machine instructions with Rust, created graphics in framebuffer.

Prose Go

Markdown-powered blog. Developed custom HTTP server with hooks for web request logging, routing and error handling.

Turtle Shell C, POSIX APIs

Shell for Unix operating systems in C. Learned memory management, process management, and usage of POSIX interfaces.

cmdmap Node.js

Node module to map CLI programs to a JSON API. Designed abstraction over standard library features for improved security.

EDUCATION

University of Waterloo

Sep 2019 – Apr 2024 (expected)

Candidate for Bachelor of Computer Science – 94.5%

- **Awards and Honors:** Received \$15,000 Computer Science Upper Year Scholarship, and placed on Dean's Honors List.
- **Mentor, StarterHacks 2020:** Provided technical and design advice in Canada's largest beginner-focused hackathon.
- **Editor, mathNEWS:** Provide news and recreation to student body via student publication of the Faculty of Mathematics.