Naman Sood

mail@nsood.in | www.nsood.in | (437) 215-7822 | linkedin.com/in/namansood | github.com/namansood

EDUCATION

University of Waterloo

Bachelor of Computer Science – 94.5%

- Awards and Honors: Received \$15,000 Computer Science Upper Year Scholarship, and placed on Dean's Honors List.
- Relevant Coursework: Data Structures, Object-Oriented Prorgamming (C++), Functional Programming (Racket, Haskell)

SKILLS

LanguagesJavaScript, Go, Rust, C++, C, Scala, HTML5, CSS3, Shell, Python, Racket, HaskellTechnologiesLinux, Git, Docker, TCP/IP, AWS, gRPC, React, SQL, MongoDB, Firebase

EXPERIENCE

Carta

Incoming Software Engineering Intern, Infrastructure

Tailscale

Software Engineering Intern

- Boosted compatibility with LXC containers by providing in-process TCP/IP and link-layer emulation, using Google gVisor.
- Enabled simple, standard communication for programs over Tailscale network by creating a SOCKS5 proxy server in Go.
- Simplified deployment of Tailscale in cloud environments by creating single-session authentication keys with auto-cleanup.
- 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 knowledge base and corporate blog (link).

University of Waterloo

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.

Creesync Software

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

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 (link) Rust

Emulator for CHIP-8 microprocessor. Simulated behavior of machine instructions with Rust, created graphics in framebuffer. **Prose** (link) *Go*

Markdown-powered blog. Developed custom HTTP server with hooks for web request logging, routing and error handling. **Turtle Shell** (link) *C*, *POSIX APIs*

Shell for Unix operating systems in C. Learned memory management, process management, and usage of POSIX interfaces. **cmdmap** (link) *Node.js*

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

Mar 2018 – Apr 2020

May 2019 – Aug 2019

Sep 2021 – Dec 2021

Sep 2019 - Apr 2024

Jan 2021 – Apr 2021

May 2020 – Aug 2020