Naman Sood

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EDUCATION

University of Waterloo `Sep 2019 – Apr 2024`
Bachelor of Computer Science – 92.3%

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

SKILLS

Languages	JavaScript, Go, Rust, C++, C, Scala, HTML/CSS, Shell, Python, Racket, Haskell
Technologies	Linux, Git, Docker, TCP/IP, AWS EC2/S3, gRPC, React, SQL, MongoDB, Firebase

EXPERIENCE

Carta `Sep 2021 – Dec 2021`
Incoming Software Engineering Intern, Infrastructure – Kitchener, ON

Tailscale `Jan 2021 – Apr 2021`
Software Engineering Intern – Toronto, ON

- Improved 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 application 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 VPN client.
- Expanded outreach with technical community by writing long-form content for knowledge base and corporate blog ([link](#)).

University of Waterloo `May 2020 – Aug 2020`
Research Associate, Sirius Blockchain Research Group – Waterloo, ON

- Hardened security by enforcing BLS signature verification for Byzantine fault tolerant distributed consensus system in Go.
- Streamlined deployment of project, by using Docker images to generate repeatable builds across diverse environments.
- Unified similar codebases by migrating duplicate components to a single C++ project.
- Assisted distributed systems research by conducting experiments on AWS EC2 and analyzing performance data in gnuplot.

Creesync Software `May 2019 – Aug 2019`
Software Engineering Intern – New Delhi, India

- 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 – New Delhi, India

- 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.