Naman Sood

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EDUCATION

University of Waterloo

Sep 2019 - Apr 2024

Bachelor of Computer Science – 3.91 GPA

• Relevant Coursework: Operating Systems, Concurrency, Networks, Security, Data Structures & Algorithms

SKILLS

Languages JavaScript, Go, Rust, C++, C, Python, Scala, HTML/CSS, Shell, Haskell **Technologies** Git, Docker, Kubernetes, AWS EC2/S3, gRPC/Protobuf, React, SQL, MongoDB

EXPERIENCE

data.world May 2022 – Aug 2022

Software Engineering Intern

Austin, TX

- Spearheaded Databricks and Apache Spark support in Java-based data catalog service by integrating JDBC database drivers.
- Boosted user productivity in code editing workspace by generating autocompletions for RDF classes and properties.
- Delivered key usability improvements to code workspace in areas like error visibility and autogeneration of code snippets.
- Refined syntax highlighting for SPARQL queries by improving regular expressions used to parse language constructs.

Carta

Sep 2021 – Dec 2021

Kitchener, ON

- Software Engineering Intern, Infrastructure
- Designed distributed gRPC logging system using Apache Fluent for scalable auditing and compliance across organization.
- Created proof-of-concept for logging system using Kubernetes DaemonSets, with ConfigMaps to deploy custom configurations.
- Enforced standardization of Protobuf definitions for over 300 microservices by designing static analysis tool in Go.
- Optimized build times by 10x for Docker images by simplifying package requirements to allow precompiled dependencies.
- Improved system availability by identifying and removing bottlenecks in Redis server connections in Python library.

Tailscale Jan 2021 – Apr 2021

Software Engineering Intern

- Toronto. ON
- Introduced cloud/serverless support by emulating TCP/IP stack in userspace for Docker containers, using Google gVisor.
- Enabled standardized communication using SOCKS5 protocol over Tailscale VPN by implementing proxy server in Go.
- Simplified deployments in cloud environments by creating single-session authentication keys with auto-cleanup.
- Developed a GitHub Action of for end-users that allows plug-and-play security for CI/CD pipelines.
- Expanded outreach within the technical community by writing long-form content for corporate blog ☑.

University of Waterloo

Research Associate

May 2020 - Aug 2020

Waterloo. ON

- Optimized Go consensus system to 3x throughput by increasing maximum transaction count sent in each message.
- 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.

The Girl Code

Mar 2018 - Apr 2020

New Delhi, India

Volunteer Full Stack Developer

■ Developed online platform to interactively teach programming in 10+ workshops across 3 countries using NodeJS.

PROJECTS

CHIP8-rust ☑ Rust

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

Clay ☑ *C, x86 Assembly*

A minimal x86 operating system. Handled tasks like interrupts, timers, paging, while balancing performance and maintainability.

cmdmap ☑ NodeJS

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