

SKILLS

Languages: C/C++, Rust, Go, Java, x86-64, ARM, JavaScript, TypeScript, Python, PHP, Bash, SQL

Technologies: MongoDB, gRPC, React, Node.js, Express, Vue.js, Bootstrap, Material UI, Vuetify

Tools: Linux, Git, Docker, Kubernetes, NGINX, Jenkins, Terraform, Bazel, Azure, AWS, Datadog, Kibana

WORK EXPERIENCE

Backend Engineer Intern - TextNow, Waterloo, ON January 2020 - Present

- Developed a phone number reconciler service that keeps the internal inventory up-to-date, discovering over 2.1 million unused numbers and saving the company \$200,000
- Deployed the service using Kubernetes, provisioned AWS with Terraform, and analyzed metrics in Datadog

Full Stack Developer - Emailtopia, Mississauga, ON May 2019 - August 2019

- Architected and developed a Go library using Fusebill to streamline subscription based billing
- Configured helm charts and NGINX ingress controllers for easier local development of each microservice
- Automated building, testing, and scaling of Kubernetes pods in all clusters using a CI/CD Jenkins pipeline
- Implemented a custom JWT based web authentication system to secure all backend APIs

Full Stack Developer - Emailtopia, Mississauga, ON January 2019 - April 2019

- Constructed backend RESTful APIs in Go using the Gorilla Mux HTTP router framework
- Wrote libraries to use Microsoft's Graph API for sending automated emails to customers
- Developed a library to use Azure Key Vault for securing secrets in the source code and deployed it in every AKS cluster using Azure AD Pod Identity configurations

Software Developer Intern - Segmenttech, Markham, ON June 2018 - August 2018

- Used Python, Bash, Batch, and Perl to automate manual tasks and increase the efficiency of workflow
- Created PowerShell scripts to automate client list appending of databases to improve data aggregation
- Programmed custom Excel macros for clients to simplify their data collection and analysis process

PERSONAL PROJECTS

Nintendo Gameboy Emulator (Rust - In Progress)

- Designed and implemented a cycle-accurate Sharp LR35902 CPU emulator

Tetris Clone (C++)

- Created a Tetris clone with authentic scoring, leveling and pseudorandom piece queueing
- Game engine implemented from scratch with C++ using SDL2 as a graphics and input backend

Chip8 Emulator (Rust)

- Wrote an accurate runtime emulation of the Chip8 interpreted programming language
- Able to play games such as Tetris, Space Invaders, and Pong

EDUCATION

Candidate for Bachelor of Software Engineering, University of Waterloo, Waterloo, ON, 2018 - Present