Zac Joffe

4B Software Engineering

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github.com/ZacJoffe
zacjoffe.com

SKILLS

Languages: C++ · C · Rust · Golang · Java · PHP · TypeScript · JavaScript · Python · Bash · SQL

Technologies: MongoDB · Redis · gRPC · Node.js · Express · Symfony · React · Vue.js

Infrastructure: Docker · Kubernetes · AWS · Azure · Jenkins · Terraform · Bazel · Datadog · Kibana

EXPERIENCE

Meta (Facebook) – Software Engineer Intern   Jan – Apr 2022
- Used **Rust** to develop an internal **Thrift** API for the Conveyor continuous integration platform
- Optimized **Rust** code in the Conveyor codebase to increase average runtime performance by **125%**
- Implemented a service in **Rust** that extends the Conveyor platform to support canary deployments

Salesforce – Software Engineer Intern   May – Aug 2021
- Developed a **Symfony**-based backend framework for the **Pardot API** with modern code generation functionality, enabling quicker endpoint implementation and optimizing performance by **150%**
- Created new endpoints with the framework and minimized **MySQL** query times through combined indexes
- Authored **PHP** service to automate inclusion of API object attributes from their respective database tables

TextNow – Backend Engineer Intern   Jan – Apr 2020
- Spearheaded development of phone number reconciler service using **Golang** to keep internal inventory up-to-date, discovering over **2.1 million** unused numbers and saving the company **$500,000**
- Deployed the reconciler using **Kubernetes**, provisioned **AWS** with **Terraform**, and analyzed metrics in **Datadog**
- Architected **Golang** service to determine cost markup for phone calls with a **200%** improvement in efficiency

Emailtopia – Full Stack Engineer Intern   Jan – Aug 2019
- Constructed subscription-based billing service in **Golang**, saving over **50** hours/week of accounting work
- Automated building, testing, and scaling of microservices using **Kubernetes** and CI/CD **Jenkins** pipelines
- Wrote framework to secure secrets in source code using **Azure Key Vault** and **Active Directory Pod Identities**

PROJECTS

NES Emulator   github.com/ZacJoffe/znes
- Built cross-platform, cycle-accurate emulator of the *Nintendo Entertainment System* using **Rust** and **SDL2**
- Accurately simulated the CPU, graphics, audio processors, and vendor-specific game cartridge hardware
- Extended support to over **1000** games published for both the *NES* and the Japanese *Famicom*

Text Editor   github.com/ZacJoffe/text-editor
- Implemented lightweight vim-like terminal-based text editor in **C** with syntax highlighting for **C** and **C++**

EDUCATION

Candidate for Bachelor of Software Engineering   University of Waterloo

CGPA: 82.71/100   Sep 2018 – Apr 2023