Ryan Prairie

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Skills

Languages: Python, Golang, Rust, Clojure, Bash, TypeScript, JavaScript, Ruby, Java, HTML, CSS, C, Powershell

Frameworks: ReactJS, Flask, SvelteJS, Ruby on Rails

Technologies: Jenkins, Packer, Docker, Linux, Windows, TCP/IP, Emacs, PostgreSQL, Nginx, Ansible, Regex

Experience

NVIDIA **Santa Clara, CA**

Security Software Engineer *Aug 2023–Present*

- Improved deployments by 3x with custom parallel deployment logic
- Designed and deployed a event-driven distributed state machine to automate server draining of high-performance storage VMs across 85 zones (255 servers total). Reduced manual effort by 10,000 hours per year
- Led a 5 engineer initiative to automate storage VM maintenance with an event-drive distributed state machine integrated into Kubernetes.
- Migrated outbound cloud service calls in a 16K-line Python legacy codebase from API keys to OAuth2, introducing token reuse and adaptive scope selection for better security and performance

NVIDIA **Remote**

Security Software Engineer Intern *May 2022–September 2022*

- Security hardened Linux with Ansible, achieving PCI DSS compliance and passing 93% of CIS CAT Assessor Tests
- Coordinated with multiple teams to integrate security rules into an operating system image

Trexo Robotics **Mississauga, ON**

Robotics Fullstack Software Developer Intern *January 2022–April 2022*

- Created REST API to control wifi connectivity of exoskeleton robots using D-Bus and Golang
- Optimized database queries, making queries 15% faster
- Implemented custom JWT authorization and authentication based on OAuth 2.0 in Golang

University of Windsor Computer Science Society **Windsor, ON**

Head of Technology *June 2020–April 2023*

- Led a team of 7 to develop a student wiki built with Docusaurus, ReactJS, and Markdown
- Built a quiz webapp using Ruby on Rails, ReactJS, JavaScript, and GraphQL to be used in a major student event

BlackBerry **Waterloo, ON**

Systems Analyst Intern *May 2021–August 2021*

- Led the design of a automation tool in Golang, achieving over 5x faster deployments on projects company wide
- Facilitated cross–departmental collaboration to develop a ReactJS, TypeScript, and REST API app company wide

Projects

Buoy – Mesh VPN

- Distributed VPN connecting clients to clients directly written in Golang
- Concurrent design to maximize throughput and availability

imacry – Proof of Concept Ransomware

- 500 MiB/s fully concurrent file encryption and decryption
- Custom protocol built on websockets with network jitter to hide heartbeat

Education

University of Windsor **Windsor, ON**

Honours Computer Science B.S. *September 2018–June 2023*