Kaitlyn Lee

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Skills

Languages

Python, C, Ruby, TypeScript, Java, Kotlin, C++, Go, MATLAB, HTML

Technologies

Docker, K8S, Android, React, Redux, Pandas, Node, GraphQL, Git, Linux, CI/CD, Rails, SQL, REST, Liquibase

CAD Software

SolidWorks, SolidWorks FEA, AutoCAD, KiCad

Education

Mechatronics Engineering

University of Waterloo | 2018 - 2023

Français Langue Étrangère

Université Laval | Jul - Aug 2018

Hackathons

Hack the North, QHacks, StarterHacks

Achievements

Hult Prize Campus Semifinalist

University of Waterloo | Nov 2019

Coursework

- Algorithms and Data Structures (C++)
- Microprocessor Systems and Interfacing
- Sensors and Instrumentation
- Computer Structures and Real-Time Systems
- Project Management

Languages

French | working proficiency

Experience

Production Engineering Intern | Shopify

Remote | Sep - Dec 2020

- Migrated **K8S** ingress level authentication system to eliminate manual configuration, saving up to 30min per new cluster
- Designed and built **REST API** and Gem using **Ruby on Rails** to securely retrieve private package info, fixing a security vulnerability
- Migrated to a new build pipeline, decreasing build times by 80%

Software Engineering Intern | Toast

Boston, MA | Jan - Apr 2020

- Designed and developed an in-app Android app upgrader to allow for remote upgrades using **Java** and saving users >30min per upgrade
- Collaborated to design microservice architecture in agile environment
- Developed REST API endpoints for our microservice using **Kotlin, Hibernate, Liquibase** and **JUnit** for unit and integration tests

Software Development Intern | Raven Telemetry

Ottawa, ON | May - Aug 2019

- Collaborated with various teams to create and automate reports, saving 3h/week using **Pandas**, **Docker**, **K8S**, and **AWS**
- Implemented strict parameter checking and unit testing to ensure API calls are correct using **Python**, **GraphQL**, and **React**
- Created Python scripts and tests and integrated projects into CI pipeline to decrease time spent on daily tasks by up to 50%

Mechanical, Electrical Engineer | Waterloop

Waterloo, ON | Sep 2018 - Aug 2020

- Designed and conducted Finite Element Analysis on wheel system using SolidWorks FEA to ensure adherence to safety requirements

Projects

Real-Time Operating System Jan 2021

- Built an RTOS in **C** with context switching, FPP scheduling, semaphores, and prio-inherit mutexes for a ARM Cortex M3 microcontroller

Young Space Entrepreneurs Competition Nov 2020 - Present

- Develop a business plan to automate experiments performed in space
- Research the market and interview various companies for insight

Code Interpreter Dec 2020 - Present

- Wrote a lexer in **Go**, the parser is in progress

Eline App May 2020

- Created online queuing system for stores to allow more physical distancing using **JS, React/Redux, Node, Express, Mongo, Heroku**
- Prioritized features for MVP after interviewing stakeholders