Robert Craig

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ACADEMICS

Software Engineering,
University of Waterloo
4.0 GPA, **96.5%** avg
2019 – 2024

SKILLS

General
Data structures / OOP / algorithms / testing / technical communication / problem solving / RESTful API development

Languages
Kotlin / Java / Python / JavaScript / C# / C++ / C / HTML / CSS / GraphQL / SQL

Technologies/Libraries
Git / Android / ReactiveX, Kubernetes / OpenShift / Docker / Spring-boot / React.js

HOBBIES

Arts
Musical Improvisation / piano / sketching / painting / guitar

Sports
Downhill skiing / rock climbing / badminton / ping-pong

RELEVANT WORK EXPERIENCE

Uber Jan. – April 2021
Software Engineer Intern (Android)

- Worked on Uber's new organization-wide **Android authentication** module using **Kotlin**
- Designed, implemented, and presented an improvement to social login on **Android**, achieving a **2-3%** lift in onboarding success
- Identified a signup and login **user experience** issue affecting **100,000 users/day**; used internal **dashboarding** tools to gather data and report impact

Global Relay May – Aug. 2020
Co-op Software Developer (Backend)

- Developed backend web microservices using **Java** and **Spring-boot**
- Designed, implemented, and presented a multi-microservice error handling strategy, which used **distributed tracing** to easily diagnose user issues
- Reduced vulnerabilities and code smells by over **90%** across five microservices using **SonarQube**'s static code analysis tool
- Proposed and completed a major refactor of two **microservices**, which reduced complexity by removing a service layer for client requests to pass through
- Increased **Kubernetes** security by creating a **Docker** container to pull secrets at runtime

Phoenix Data Consulting April – Aug. 2020
Cofounder and Software Engineer

- Cofounded a pro-bono **data science** consulting company focused on non-profits
- Created a **deck.gl** layer that used a custom **spatial interpolation** algorithm, written in **JavaScript**, to help Indigenous communities better understand seasonal trends by visualizing temperature and salinity data for the water of the Hudson's Bay
- Demoed a **Vue.js** frontend data visualization software to a client

PROJECTS

teagreen.ca
- Developed a music improvisation blog using **React.js** and **Gatsby.js** where I posted daily musical compositions
- Designed an easy to use web interface using **styled-components** and **CSS** to accommodate less technologically advanced family members
- Used **JavaScript** and **MobX** to create an audio player using that supports shuffle, track queues, and scrubbing

Just Your Feedback
- Won SurveyMonkey's API prize at Hack the North 2019
- Developed a **Python**/**Pyramids** backend to an image recognition application that can detect thumbs up/down through a web camera and automatically submit a survey to SurveyMonkey

Gyroll
- Created a gyroscope-controlled marble maze game using **C#**, **Unity**, **C**, and an **Arduino** on a team of four developers
- Simplified development by architecting an improved maze initialization process that used the object-oriented principles of **polymorphism** and **encapsulation**