Owen Craston

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WORK EXPERIENCE

SHOPIFY | DEVELOPER   Full-time | Remote | May 2020 – Present

- **Lead a project** from design to launch where we built a cross platform **barcode scanner SDK** to establish a common API between different scanner vendors using **React Native**, **TypeScript**, **Kotlin** and **Swift**.
- Brought the point of sale application from **zero** performance measurements to being **fully instrumented** with **Apdex scores** for each flow.
- Created tooling that lead to a **45 percent increase** in test coverage.
- Released barcode scanner SDK as a standalone **NPM package** and integrated it into several applications at Shopify.
- Integrated external hardware with the Shopify Point of Sale application using **React Native**, **TypeScript**, **Kotlin** and **Swift**.
- Led efforts to transform a mobile gift card application from a hackathon project to being production ready.

SHOPIFY | MOBILE DEVELOPER   Internship | Ottawa, ON | Sep 2019 – May 2020

- Added the ability for users to see the connection status of their **internet**, **Bluetooth** and **connected devices** (card readers, printers etc) to the point of sale application.
- Wrote **react native modules** for communicating between the **Android APIs** and the **React front end**, as well as working with **native SDKs** to communicate with connected peripherals.

SHOPIFY | ANDROID DEVELOPER   Internship | Ottawa, ON | Jan 2019 – Sep 2019

- Built an **offline resilient analytics engine** to track user events for the entire Android organisation using **WorkManager**, a task scheduling framework from **Android Jetpack**.
- Worked on migrating the Shopify Android app to a new architecture focused around **MVVM** (Model–view–viewmodel), **GraphQl** and **Kotlin**.

SHOPIFY | CLOUD SECURITY DEVELOPER   Internship | Ottawa, ON | Apr 2018 – Jan 2019

- Worked on a **security tool**, Voucher, that tested the security of Shopify's **docker images** and verified them on deploy using Google's Binary Authorization library in **Golang**.
- Integrated Voucher with the existing **Continuous Integration** pipeline in the form of a **microservice**.
- Made Voucher **open source** ready by removing all Shopify specific logic.
- Worked on the first version of a **Bug Bounty** program for **Kubernetes** and **Docker** with **Hackerone**.

SHOPIFY | DATA WAREHOUSE DEVELOPER   Internship | Ottawa, ON | Sep 2017 – Apr 2018

- Created and managed data sets in **AWS Redshift** with **python** and **pyspark.sql**.
- Worked towards developing a dimensional data model based on the **Kimball Data Warehousing** standards.
- Communicated directly with large clients about their data requirements and synchronised the refreshing of data based on their events.

PROJECTS

AUTOMATED WATERING SYSTEM   ARDUINO

Developed a **solar powered** Arduino program that controls water distribution through a system of plants. The Arduino communicates with a real time clock and determines when to activate the solenoid valve and dispense rain water throughout the garden. This system reduces water consumption by **80 percent**.

EDUCATION

BSc. Honours Computer Science With Industrial Applications Specialization   Ottawa, ON | Sept 2016 - Apr 2020

CARLETON UNIVERSITY

A first of its kind program where students integrate what they learn in computer science with the work being done at **Shopify**.