SEBASTIAN CAIN

U.S. Citizen, Canada Work Permit

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EDUCATION

UNIVERSITY OF WATERLOO
Honors Computer Science
Expected Grad. April 2022
(5-year Co-op Program)

COURSEWORK

CS 137: Programming Principles
CS 138: Data Abstr. + Implementation
ECE 124: Digital Circuits + Systems
CS 241: Sequential Programs
SE 212: Logic and Computation

LANGUAGES

PROFICIENT
Swift, Objective-C, Python, C

FAMILIAR
Java, C++

AWARDS

WATERLOO ENGINEERING
International Student Scholarship

APPLE WWDC 2017
Scholarship Recipient + Attendee

HACKBCA III
Best Mobile App + 3rd Overall

PENNAPPS WINTER 2016
Top 10

HACKBCA II
2nd Overall

EXPERIENCE

DRAPER AI - MOBILE ENGINEER
Waterloo, ON - March 2018 to August 2018
Developed core features for Draper's Perpetua iOS app, utilizing MVVM architecture. Implemented unit testing with object mocking and dependency injection for 70% of the app's view models, increasing overall test coverage 5%. Worked closely with designers to conceptualize and implement interface components. Engineered product features including an interactive product carousel, a post-signup email verification system, and a reorganization of the dashboard to include a three-level data visualization drilldown.

SHIPPA - iOS DEVELOPMENT INTERN
NYC, New York - Summer 2016
Implemented new features for Shippa's native iOS app, including a system of custom alert controllers, Instagram API integration, theming for different types of accounts, and other UI fixes and features.

PLUTONIUM APPS - CONTRACT iOS DEVELOPER
Atlanta, GA (Remote) - Jan 2016 to March 2017
Developed and maintained several large scale iOS apps for various clients through Plutonium Apps, including Qollaboration (now BrightCrowd), 7 Weeks, and Grades.

KEEP - iOS DEVELOPMENT INTERN
NYC, New York - Summer 2015
Worked on animations and complex user interface controls for Keep's Refill app, including a Collection View-based system of custom knobs that manipulated quantities of products the user was ordering.

PROJECTS

QUADCOPTER - *SE101 - November 2017*
Built and programmed a fully functional quadcopter using an Arduino Uno. Developed a mobile app to remotely calibrate the quadcopter before takeoff and control the quadcopter's movement over Bluetooth while in the air.

REPPIN - *HackBCA III - April 2016*
Created Reppin, a virtual personal trainer that utilizes OpenCV to track one's movement to count the number of pushups one does in real time, and uses a text-to-speech converter to count reps and sets out loud.

MAGICPEN - *PennApps - Jan 2015*
Created MagicPen, a remote drawing app that uses the built-in magnometer in the iPhone, extracts its raw data, and converts a polar plane into a Cartesian plane in order to track a remote magnet pen's coordinates. Then, it maps the coordinates, and traces lines as you write in real-time.