

# SEBASTIAN CAIN

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U.S. Citizen, Canada Work Permit

## 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 magnetometer 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.