

Zachary David Johnson

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github.com/zjohnson5455

Work Experience

Dartmouth DALI Lab - Hanover, New Hampshire

Developer

Spring 2018 - Present

- Front-end developer on android app designed to be a social media platform for government accountability in the Democratic Republic of the Congo
 - Stack: Kotlin, Apollo-Client-Android, GraphQL, MongoDB

Dartmouth Robotics Laboratory - Hanover, New Hampshire

Undergraduate Researcher

Winter 2018

- Worked in 3-person team on teaching sign language using hand-tracking and augmented reality
- Helped develop code to compare hand-data from Leap device to database and output result to web app
- Built Microsoft Hololens app to display signs as 3D holograms on which users can overlay their hand
- Built and tested Turtlebot3 in preparation for Dartmouth Robotics Course

Program Solving via Object-Oriented Programming - Hanover, New Hampshire

Tutor

Winter 2018

- Helped several students through their lab assignments and exam preparation
- Developed expertise in data structures and data compression

RI General Treasurer's Office - Providence, RI

Policy Intern

Summer 2017

- Performed research and developed reports on issues including school construction funding, social impact bonds, and college financing
 - Carried out a range of administrative duties including answering the phone and calling references regarding a proposed partnership
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Projects

DBAid

[https://github.com/dartmouth-cs52-18S/project-\[client/api\]-dbaid](https://github.com/dartmouth-cs52-18S/project-[client/api]-dbaid)

Javascript, React Native, MongoDB

- In team of 6, developed cross-platform app designed to promote sharing of Dartmouth's dining dollar equivalent. Works on a listing system where users post when and where they are willing to pay
- Also includes a geofencing page where users only see listings in their area

Dartmouth Drinks

<https://github.com/zjohnson5455/dartmouth-drinks>

Java, XML, Google Firebase

- In team of 3, developed android app designed to curb dangerous drinking behaviors on college campuses
- Displays Blood Alcohol Content (BAC) in real-time based on profile information
- Provides historical and graphical representation of drinking in a given night
- Uses a geofencing feature to alert party hosts or user friends if BAC goes over a certain level

Pokemon Go: Cat Edition

<https://github.com/zjohnson5455/pokemon-go-cats-edition>

Java, XML

- With a partner, developed an android app designed to mimic the functionality of Pokemon Go, except using cats placed randomly around Dartmouth's campus
- Implemented a tracking service, Google Maps integration, and a camera overlay as key features

Education

Dartmouth College - Hanover, New Hampshire

Anticipated June 2020

Computer Science - GPA: 3.76

Introduction to Programming and Computation, Problem Solving via Object-Oriented Programming, Smartphone Programming, Web Development, Software Design & Implementation (Summer '18)

East Greenwich High School - East Greenwich, Rhode Island

June 2016

National Merit Scholar, AP Scholar with Distinction, RI Individual Tennis State Champion, U.S. Senate Youth Program Delegate, Class President, Debate Captain, Mock Trial Captain, RI Lt Governor's Leadership Award

Languages

Expert (>1 Year Experience)

Java

Python

Competent (<1 Year Experience)

HTML

CSS

Javascript

Familiar (Understand basics)

Swift

Kotlin