## **GABRIEL** RAWSON

914 - 560 - 6688 Grawson2@jhu.edu Github.com/grawson

Java

Swift

HTML / CSS

MySQL / MongoDB

AJAX

Game Dev

C / C++

PHP

Javascript / JQuery Couchbase Lite / CouchDB

iOS / Android / Web Dev

Illustrator

#### **EDUCATION**

#### **Johns Hopkins University**

3.S. in Computer Science and Cognitive Science Expected May 2017 • Dean's List

'ursuing Master's in Computer Science beginning Fall 2017

#### **Relevant Coursework**

Natural Language Processing, Computer Vision, Computer Graphics, Video Game Design, User Interfaces and Mobile Applications, Algorithms, Computer System Fundamentals, Data Structures, Intro to Optimization, Graphic Design

#### EXPERIENCE |-

#### OS Developer InternApple

*lune 2017 - August 2017* 

Will work on the HealthKit and ResearchKit team o develop mobile software for the iPhone, iPad, and Apple Watch

#### **\_ead iOS Develope** *Gorrie Health*

lune 2016 - October 2016

Wireframed and programmed the first cardiac CareKit app nimed at reducing hospital readmissions

Collaborated with Apple; pitched to COO Jeff Williams and presented at app reviews with Vice President of Health, Special Projects lead, and CareKit lead developer

Launched app for 200 patients at the Johns Hopkins lospital and Bayview Medical Center

Prioritized and delegated tasks to developers on the growing team, and reviewed all code produced before nerging

#### Algorithms Course Assistant HU

September 2016 - December 2016

- Graded assignments, and held office hours to assist 70 students
- Worked with professor and other course assistants to prepare assignments

## Full Stack Web DevelopeResearchConnection

June 2015 - August 2015

- Redesigned dashboard for the company website
- Managed SEO and increased website's visibility on search engine results
- Developed company policy for documenting code to facilitate the onboarding process

### Director of MarketingHoptoberfest

September 2014 - May 2015

- Managed \$100,000 budget and guided marketing team on promotional materials
- Designed and published iOS app for each social event throughout Hoptoberfest week

#### PROJECTS ⊢

#### JHU Spring Fair iOS Apphared on Github

Displayed schedule of events, vendors, and artists Built a favorites system, Google directions, and iOS alendar functionality

Designed graphics for the UI

#### **Hat Factory Game**

Assembled a 2D platformer game using libsdl2 Created a character with five abilities, dynamic enemies, and hree distinct levels

Implemented boundary detection, AI behaviors, automatic nap generation, and time based rendering

#### **Gopher Android App**

- Implemented an order cycle that facilitates buying and selling of home-cooked meals for users
- Utilized Google Maps API to populate a dynamic map of users and meals they post
- Built authentication and backend using Firebase

#### Aisle Mate iOS AppShared on Github

 Created a grocery shopping app that tracks a user's shopping behaviors and automatically generates a personalized shopping list

## GAVI RAWSON

914 - 560 - 6688 Gavirawson@gmail.com Github.com/grawson

ROS

Hadoop!

Illustrator

iOS Dev

Web Dev

Electron

SQL / NoSQL

**UX** Design

Android Dev

Game Dev

#### **⇔** EDUCATION

#### **COLUMBIA UNIVERSITY**

M.S. in Computer Science Vision, Graphics, Interaction and Robotics Track Expected December 2018

#### JOHNS HOPKINS UNIVERSITY

B.S. in Computer Science and Cognitive Science May 2017 3.4 GPA 2 Dean's List Awards

#### **RELEVANT COURSEWORK**

Natural Language Processing, Computer Vision, Computer Graphics, Machine Learning, Computational Aspects of Robotics, Video Game Design, Graphic Design

#### **≜** EXPERIENCE ⊢

#### APPLE HEALTH SPECIAL PROJECTS • Software Engineer • 6/17 - 8/17

- Extended CareKit to support dynamic activities, animated encouragements, and reward system, thus improving provider-patient communication.
- Built end to end gaze detection app utilizing CoreML. App distributed amongst employees, collected data to improve CoreML models.
- Crafted 60 screen storyboard for Apple Watch + iPhone feature. Structured flow and script to appease both FDA and user concerns.

#### JOHNS HOPKINS UNIVERSITY • Algorithms Course Assistant • 9/16 - 12/16

- Graded assignments and held office hours to assist 70 students.
- Worked with professor and other course assistants to prepare assignments.

#### CORRIE HEALTH • Lead iOS Developer • 6/16 - 10/16

- Wireframed and programmed first cardiac CareKit app aimed at reducing hospital readmissions.
- Delegated tasks to iOS development team, and reviewed all written code before merging.
- Collaborated on-site with Apple, presented app to COO Jeff Williams and at app reviews to Vice President of Health and Health Special projects lead.
- App reduced readmission rate to zero for 50 participating patients at the Johns Hopkins Hospital and Bayview Medical Center.

#### RESEARCH CONNECTION • Full Stack Web Developer • 6/15 - 8/15

- Taught self web development and built user dashboard and search system.
- Improved website's SEO and ultimately achieved Google Sitelinks.
- Initiated company policy for documenting code to facilitate onboarding process.

## ¬ PROJECTS ⊢

#### MAVI IOS APP · Hackathon

- Built crosswalk and crowd detector app aimed at aiding the blind in 48 hours.
- Utilized iOS Client, Flask backend, Haar and Cascading classifiers for crosswalk detection, and Microsoft's Emotion API for crowd and emotion detection.
- Top ten finalist, awarded best health project.

#### HOME DASHBOARD • Shared on Github

- Developed cross platform desktop application using Electron, Google Calendar API, and OpenWeatherMap API.
- Implemented common modules including monthly and daily calendar views, and weather forecast
- Deployed on a Raspberry Pi and hooked up to a display for constant access.

#### **GOPHER ANDROID APP**

- Implemented an order cycle facilitating buying and selling of home-cooked meals.
- Utilized Google maps API to populate dynamic map of users and meals.
- Built authentication and backend using Firebase.

# GAVI RAWSON

914 - 560 - 6688 Gavirawson@gmail.com www.gavirawson.com

ROS

AR / VR

Illustrator

Unity

iOS Dev

OpenCV

SQL / NoSQL

Electron

Web Dev

Android Dev

#### **⇔** EDUCATION ⊢

#### **COLUMBIA UNIVERSITY**

M.S. in Computer Science • Vision, Graphics, Interaction, and Robotics Track • Expected December 2018

#### JOHNS HOPKINS UNIVERSITY

B.S. in Computer Science and Cognitive Science May 2017 2 Dean's List Awards

#### RELEVANT COURSEWORK

3D User Interfaces and Augmented Reality, Computer Graphics, Computer Vision, Humanoid Robotics, Computational Aspects of Robotics, Machine Learning, Natural Language Processing, Video Game Design, Graphic Design



#### RESEARCH ASSISTANT • Columbia University Robotics Lab 9/17 - Current Date

- Implemented website from scratch allowing spinal chord injury patients to interface with a robotic arm for grasping tasks.
- Website built using NodeJS, Express, RequireJS, and Mustache.
- Utilized ROS and roslibjs to write modular controllers, allowing input devices such as Alexa, sEMG device, and binary switch to communicate with the interface.

#### APPLE HEALTH SPECIAL PROJECTS • Software Engineer • 6/17 - 8/17

- Extended CareKit to support dynamic activities, animated encouragements, and reward system, thus improving provider-patient communication.
- Built end to end gaze detection app utilizing CoreML. App distributed amongst employees, collected data to improve CoreML models.
- Crafted 60 screen storyboard for Apple Watch + iPhone feature. Structured flow and script to appease both FDA and user concerns.

#### JOHNS HOPKINS UNIVERSITY • Algorithms Course Assistant • 9/16 - 12/16

- Graded assignments and held office hours to assist 70 students.
- Worked with professor and other course assistants to prepare assignments.

#### CORRIE HEALTH • Lead iOS Developer • 6/16 - 10/16

- Wireframed and programmed first cardiac CareKit app aimed at reducing hospital readmissions.
- Delegated tasks to iOS development team, and reviewed all written code before merging.
- Collaborated on-site with Apple, presented app to COO Jeff Williams and at app reviews to Vice President of Health and Health Special projects lead.
- App reduced readmission rate to zero for 50 participating patients at the Johns Hopkins Hospital and Bayview Medical Center.

## **PROJECTS** ⊢

#### HAT FACTORY GAME • Shared on Github

- Assembled 2D platformer game using libSDL2 C++ bindings and component architecture.
- Designed character with five abilities, dynamic enemies, and four levels.

#### **BAXTER ROBOT**

- Programmed a Baxter robot with two seven degree-of-freedom arms to play pool.
- Utilized point clouds and segmentation to recognize the playing field, and Movelt! to plan trajectories.
- Worked with tools such as ROS, RViz, and Gazebo for simulation.

#### MAVI IOS APP · Hackathon

- Built crosswalk and crowd detector app aimed at aiding the blind in 48 hours.
- Utilized iOS Client, Flask backend, Haar and Cascading classifiers for crosswalk detection, and Microsoft's Emotion API for crowd and emotion detection.
- Top ten finalist, awarded best health project.