

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

EXPERIENCE

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 MoveIt! 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.