JARVIS J. WANG

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EDUCATION

MCMASTER UNIVERSITY
B.Eng. Computer Engineering (Co-op)
2017 – 2021 (Expected)
Dean's Honour List

SKILLS

Languages
Python, C, JavaScript, Java, HTML, CSS, Swift, LaTeX, MATLAB

Frameworks/Libraries
Node.js, Express.js, Angular.js, MySQL, MongoDB, Git, Bash, AWS, OpenCV, SciPy, Linux

Hardware/Tools
Arduino, Raspberry Pi, Oscilloscope, Soldering

Graphic Design
Photoshop, AutoCAD, Autodesk Inventor

EXTRACURRICULAR

President
McMaster Sumobot Club
April 2018 – Present
- Coordinate the executive team, organize club events and communicate with school departments
- Hold tutorials and 2 sumo-robot competitions of 00 participants
- Established the partnership with IEEE McMaster Branch

AWARDS

Top 3 & Best Pitch
McMaster IMPACT Project
Dec 2017
- Top 3 teams among 1st year engineering students

WORK EXPERIENCE

Application Developer, Faculty of Health Sciences — May 2018 – Aug 2018
McMaster University, Hamilton ON
- Developed a web application to facilitate more efficient generation of clinical simulation scenarios used to train health care providers, decreased the generation time by 50%, built with **Node.js**, **Express**, **MongoDB**, and **Bootstrap**
- Migrated the application and existing simulation data from internal data centre to **AWS**

Mathematics & Physics Tutor — Jan 2018 – May 2018
MacBridge Academy, Hamilton ON
- Worked on tutoring high school students in Math and Physics courses

Embedded Software Engineer Intern — July 2017 – Aug 2017
Wingtech Technology Co.Ltd., Shanghai, China
- Researched, designed and integrated scalable applications of VR headset in **C**
- Implemented software requirement analysis and testing for RTOS on the headset

PROJECTS

Iris at UtraHacks 2018 — Nov 2018
- Developed a gesture controlled music player with RGB visualizer
- Used three **IR sensors** and one webcam (with **OpenCV**) as the gesture control module, integrated Spotify **Web API** and used **signal processing (SciPy)** to generate spectrum from system audio input and encoded it to RGB Led array, built with **Python** and **C**

Driver Attention Alert System — Oct 2018
- Developed an alert system to detect drowsy driving when CAV and ACC tech is enabled
- Used eye-tracking with dual camera as well as 8 linear pressure sensors and vibration motors integrated on a steering wheel, built on **Raspberry Pi** and **Arduino** with **OpenCV** and machine learning

Music'o at Hack the Valley II — Feb 2018
- Worked in a team of 4 to develop a web application called Music'o, which aimed at helping people relax their mind, mood and body by playing music according to the weather in the current city
- Built in **HTML**, **CSS**, and **Javascript** with Yahoo weather, geolocation and Spotify API

Rescue Robot at RoboCup Junior 2015 — Dec 2014 - April 2015
- Worked in a team to build an Arduino robot identifies victims within re-created disaster scenarios, varying in complexity from maze-running on a flat surface to negotiating paths through obstacles on uneven terrains
- Designed and **3D printed** the chassis of the robot, wrote algorithm for maze running in **C**

VOLUNTEER & EXTRACURRICULAR ACTIVITIES

Set-up and Information — April 2018
First Robotics at McMaster, Hamilton ON
- Set up, promoted social in the pits and stands, directed people from DBAC to the Hall, and socialized with students
- Provided information service to the passing visitors and participants