

JARVIS J. WANG

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EDUCATION

MCMASTER UNIVERSITY

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

Related Courses:

Logic Design, Circuit
Analysis, Data Structure

SKILLS

Languages

Python, C, JavaScript, Java,
HTML, CSS, C++, L^AT_EX,
MATLAB, Verilog

Frameworks/Libraries

Node.js, Express.js,
Angular.js, MySQL,
MongoDB, Git, Bash, AWS,
OpenCV, SciPy, Tensorflow

Hardware/Tools

Arduino, Raspberry Pi,
Oscilloscope, Soldering

Graphic Design

Photoshop, AutoCAD,
Autodesk Inventor

VOLUNTEER

Set-up and Information

*First Robotics at
McMaster*, Hamilton ON
April 2018

- Set up, promoted social in the pits and stands, directed people from DBAC to the Hall, and provided information service to the passing visitors and participants

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 students from grade 4 to 12 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 web-cam as well as 8 linear pressure sensors and vibration motors integrated on a steering wheel, built on **Raspberry Pi** and **Arduino**, with **OpenCV** and **ML**

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

EXTRACURRICULAR ACTIVITIES

PR Manager and Computer Vision & AI Team Member

MAC RoboMaster Team

Sep 2018 - Present

- Represent McMaster University to participate in the DJI RoboMaster Robotics Competition
- Authored grant proposals to secure funding and prepared marketing materials to bring in new sponsors
- Work with computer team on neural network training, data scraping and RC software
- Implemented **CV**(stereo vision distance measurement and auto-aim) modules on two fully-autonomous robots in **C++**, and improved the aiming accuracy by 30%

President

McMaster Sumobot Club

April 2018 - Present

- Coordinate the executive team, organize club events and communicate with school departments
- Host tutorials and 2 sumo-robot competitions of over 300 participants