Haochen Gu

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SUMMARY

- Second-year Electrical Engineering student at McMaster University
- Several hackathons and project experience
- Good communication and learning ability
- Management experience of a 4000-members-online community
- A core member of a video subtitle translation group of 12 million+ views
- A student-run recycle program leader in high school
- Experience with MS office suite, Inventor, Matlab, PSpice, Quartus, Keil, oscilloscope, and 3D printer. Have Python, C++, Java, Verilog, Raspberry Ri, and ARM embedded development experience. Often try new projects after school

EDUCATION

McMaster University   Sep 2018 - Apr 2022

Electrical Engineering Bachelor   Hamilton, Canada

- GPA: 10.8 / 12
- Free-Choice qualified (Top 10%)
- Entrance Scholarship
- Euclid Mathematics Contest top 25%

WORKING EXPERIENCE

Nanjing RoundExpo Co., Ltd.   Jul 2019 - Aug 2019

Assistant，International Division   Nanjing, China

- Organized China (Nanjing) International Software Product & Information Service Expo and China (Nanjing) International Intelligent Agriculture Expo
- Responsible for communication and coordination, including communication with government officers and facility providers
- As a manager assistant, assisted in the opening ceremony, seminars, guest banquet, etc.

PROJECT EXPERIENCE

Automatic Lidar Measurement System   Feb 2020 - Jun 2020

Electronic / Programming / Testing   Hamilton, Canada

- Program a TI MSP432E401Y Microcontroller to control a ToF module. After a button is pressed, a 360-degree measurement will be done by the ToF module driven by a stepper motor
- The data is sent to a computer through serial communication, and is visualized by the Pyserial and Open3D Python library
- Responsible for programming, mounting the system, serial communication and testing

Easyhear   Jan 2020 - Mar 2020

Leader   Hamilton, Canada

- Worked in a team of three students to develop a speech translation technique that can pick up voice from the professor's microphone and subtitling his/her speech to display in real-time. It helps students sitting in the back or hearing-impaired students catch the speech
- Lead this project. Responsible for real-time speech recognition using Microsoft Azure Speech-to-Text API
- Is able to recognize continuously. The Speech recognition success rate is higher than 90%

Distance Warning System Based on Arduino   Apr 2019 - May 2019

Independent Project   Hamilton, Canada

- An Arduino system including an ultrasonic ranging sensor. An LCD screen is used to display the distance to obstacles. It will throw three kinds of sound and light alarm warnings according to the degrees of danger
- Responsible for C programming, data processing, display of LCD screen, installation and connection of ultrasonic

ranging sensor

Machine Hand   Feb 2019 - Apr 2019

Gear Design   Hamilton, Canada

- A robot machine hand driven by a group of 3D-printed gears. Is able to close its thumb and fingers to pick up items
- Responsible for gear ratio calculation, CAD design, assembly, and system debugging

CargoSecure   Jan 2019 - Feb 2019

Programming, UI, Testing   Hamilton, Canada

- Worked in a team of three students to provide an Android APP solution to enhance cargo safety during transportation
- Responsible for the system structure, APP debugging, UI design, testing, and packaging
- Is able to send an alarm message automatically when the driver is 30 meters away from the delivery vehicle

LEADERSHIP EXPERIENCE

Mac Robomaster   Oct 2019

Mechanical Group   Hamilton, Canada

- A club for competing in DJI RoboMaster Robotics Competition
- Worked in a team of three students to design and manufacture the engineering robot and the cannon of infantry robot

SKILLS, CERTIFICATIONS & OTHERS

- **Skills:** MS office suite, oscilloscope, Python, C++, Java, Verilog, Raspberry Pi, ARM embedded development, Inventor, Matlab, PSpice, Quartus, Keil
- **Languages:** English (IELTS-7.0)
- **Interests:** Badminton (school team member), photograph (shortlisted in Nikon Photo Contest. A photo was posted on McMaster University Instagram and has 1000+ likes)
- **Activities:** Deltahacks V, Deltahacks VI (hackathon), China (Nanjing) International Software Product & Information Service Expo, China (Nanjing) International Intelligent Agriculture Expo (volunteer)