

# MICHAEL ZHENG

MECHATRONICS ENGINEERING STUDENT (YEAR 3)

## CONTACT DETAILS

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## RELEVANT COURSEWORK

- Data Structures and Algorithms (C)
- Engineering Design (Inventor and Python)
- Analog and Digital Circuits
- Software Development (MATLAB Simulink)

## ACHIEVEMENTS

- Woodlands Level 4 Music Award
- Maj Tom Howard Fitness Award

## EDUCATION

### MCMASTER UNIVERSITY (2019-PRESENT)

*Year 3 Bachelor of Engineering (Co-op)*

### THE WOODLANDS SECONDARY SCHOOL (2015-2019)

*High School*

## SKILLS AND QUALIFICATIONS

- Autodesk inventor, Solidworks, KiCad
- DaVinci Resolve, Blender
- Multisim SPICE
- C/C++, Arduino, JavaScript, Python
- Cisco IT Essentials Course
- Canva, Microsoft Office, LaTeX
- Red Cross First aid and CPR (Level C)
- Wilderness First Aid certified

## PROJECTS

### HACK THE NORTH 2021 - SCRIBBL Y

- Used Python to create image processing program to convert images to vectors
- Vectors fed into an Arduino robot in order to draw image in real life

### NIXIE TUBE CLOCK

- Designed a nixie tube alarm clock powered by Arduino
- Entirely built from scratch, including desiging PCB, Arduino code, and chassis

## WORK EXPERIENCE

### CANADIAN ARMY RESERVES - SIGNAL OPERATOR

*John Weir Foote Armoury, Hamilton, Ontario | September 2021 - Present*

- Work with PC hardware and software maintenance
- Work with communications equipment, including high frequency radios, and networking infrastructure

### STAFF CADET

*Blackdown Cadet Training Centre | June-August 2018 /2019*

- Taught 3 week courses throughout summers of 2018 and 2019
- Instructor and mentor for groups of 30 cadets aged 13-16
- Taught hard skills, including fitness, sports, mountain biking, backcountry hiking, and canoeing
- Resolved both interpersonal and intrapersonal conflicts of cadets and fellow staff members
- Wrote course reports summarizing the cadets' performance throughout their time at the training centre

## EXTRACURRICULARS/VOLUNTEERING

### 2824 RCAC - COMPANY SERGEANT MAJOR *(Oct. 2014-2019)*

- Planned and organized training for the company, including lessons, fitness, and activities such as sports, shooting, and volunteer opportunities
- Taught and mentored 50+ cadets aged 12-18 in many skills, including leadership, citizenship, and fitness

### CONCERT BAND - SECTION LEADER *(Sept. 2015-June 2019)*

- Taught other musicians in Trombone/Euphonium section in playing their instruments
- Organized weekly sectionals and managed the sheet music
- Qualified for National competition twice

### MCMASTER CULTURE CONNECT - VP MARKETING *(Aug. 2021 - Present)*

- Founding member of McMaster Culture Connect - a multicultural club at McMaster
- Managed marketing components of club, including student outreach, creating marketing material and managing club social media accounts

### MCMASTER EXPERIENCE VENTURES *(Oct. 2021)*

- Worked with College Pro Window Cleaning executives
- Collaborated with other students to develop products to increase operating efficiencies, such as route optimization and a cost estimator