

# Austin Luu

☎ (416) 451-3338 | ✉ austin.owen.luu@ryerson.ca | 🏠 austintoasteh.github.io | 🔗 linkedin.com/in/austin-l

## TECHNICAL SKILLS

---

**Software** SolidWorks, AutoCAD, Microsoft Office, Adobe Photoshop

**Programming Languages** JavaScript, Java, C, Python, MATLAB

**Tools and Frameworks** HTML, CSS, React, Node.js/Express, Git, Android Studio, OpenCV, jQuery

## EDUCATION

---

### Ryerson University

*Toronto, ON, Canada*

B.ENG IN MECHANICAL ENGINEERING

*Sep. 2016 — May 2020*

- CGPA: 3.90 | Dean's Honour List
- Received Mechanical Eng. First Year Alumni Awarded for being one of the top three highest academically achieved students in my program for the 2016/2017 academic year
- Received Robotics International/Society of Manufacturing Engineers Award for outstanding academic performance and contribution to the field of robotics
- Relevant Courses: Stress Analysis, Mechanics of Machines, Machine Design, and Manufacturing Fundamentals

## PROJECTS

---

### Bionic Arm

TEAM PROJECT @ RYERSON RAMS ROBOTICS

*Mar. 2018 - Present*

- Designed and fabricated a prosthetic arm assembly offering 17 degrees of freedom using Arduino mega, C, SolidWorks, AutoCAD, and 3D printing
- Implemented a \$150 budget design as a proof of concept to further the field of bio-mechanics in hope of making prosthetics more accessible and versatile

### Parallel Computing Drone Swarm

TEAM PROJECT @ PENNA APPS HACKATHON

*Sep. 2018 — Sep. 2018*

- Designed system and hardware architecture for a hazard detection 2D mapping software which collects thermal, moisture, and relative location data from two autonomous IoT enabled ground drones; placing within the top 20th percentile of participants
- Developed with: Python, C/C++, MQTT Protocol, laser cutting, 3D printing, and Arduino 101s

### UFbOat

TEAM PROJECT @ RYERSON UNIVERSITY

*Sep. 2017 — Dec. 2017*

- Evaluated project requirements for designing a maritime life support system in the Caribbean sea to develop maritime escape and life support for smaller scale usage
- Designed an emergency lifeboat following the engineering design practices; project initialization, problem analysis, system design, subsystem recursion, and detailed design

## EXPERIENCE

---

### Ryerson Rams Robotics

*Toronto, ON, Canada*

MECHANICAL LEAD

*Sep. 2016 — Present*

- Led an agile team of 10 in designing and developing a robot capable of expanding 150cm in height, repetitive lifting of 10lb, and omni-directional drive; winning a spot in the international VEXU 2018 competition
- Project manage a team of 35+ in developing a robot for the VEXU 2019 competition to place 1<sup>st</sup> nationally
- Evaluation and development of technical enhancements and modifications to existing design, increasing product performance and failure reduction by over 35%

### Home Staging by K

*Brampton, ON, Canada*

LEAD WEB DEVELOPER

*Sep. 2016 — Present*

- Lead planning, design, and implementation of new and existing web services, websites and applications; including an online report pipeline and a user-friendly front-end with JavaScript, CSS, HTML, using WordPress CMS
- Applied evaluation and development efforts of technical enhancements and modifications; defined, scoped and documented requirements for new websites and web services leading to 20% increased user pool

### Megamind Abacus

*Brampton, ON, Canada*

STEM TUTOR

*Mar. 2017 — Oct. 2017*

- Provided educational guidance to classes of 3+, increasing academic performance of students by up to 20%
- Designed personalized educational curricula for 40+ individuals, promoting student's study methods and needs