# YAN KE

1B Mechatronics Engineering at University of Waterloo



**Skills** Proficient: C/C++, Python

Prior Experience: HTML, CSS, AngularJS

Tools: Git, Arduino, Bootstrap, Jekyll, Solidworks, AutoCAD, RobotC

# **Projects**

## **Syncin** | devpost.com/software/synchin

Sept 2016

- Creater an iOS and web application to streamline networking in job fairs using iBeacons
- Designed and pair programmed the web application using AngularJS and Firebase
- Led team discussions through iterations of design process and found opportunistic code reuses for depreciated code

EasyPassword Dec 2016 – Present

- Implemented SHA256 hash using **OpenSSL** and public key encryption to store data
- Using OpenCV to implement user facial recognition in C++

APPC Wind Tunnel Dec 2015 – Feb 2016

- Designed and constructed a wind tunnel capable of detecting atmospheric data and aerodynamic forces on airfoils in real time
- Programmed and integrated an Arduino microcontroller with MatLab

#### **NXT Mindstorm Table Tennis Trainer**

Nov 2016 - Dec 2016

- Designed an autonomous table tennis ball shooter capable of shooting a ball every
  1.6 seconds, built using 3-D printed gears, laser-cut acrylic, and NXT sensors
- Programmed and created user interface in RobotC

## Personal Website | yanske.me

Dec 2016

- Created an online portfolio using HTML, CSS and Bootstrap
- Built using Jekyll, used liquid markup to create modular projects section

# **Experience**

#### Machine Learning Engineer – UW BioTron (Powered Arm)

Sept 2016 – Present

- Implemented signal processing filters in C++ for biomedical signals received from Myo
- Using support vector machine to train data sets in Python and C++

### Director of Web Operations – TOPS Program Marc Garneau C.I. Sept 2012 – June 2016

- Executive of the TOPS program website, mentored and managed developer team
- Created online registration and handled over 600 online registrations

#### Real Estate Assistant – AimHome Realty Inc. Brokerage

July 2015 - Sept 2016

- Demonstrated strong customer service skills while communicating with clients
- Researched and documented property information, maintained agent's website

# Education

#### University of Waterloo

Sept 2016 - Present

- Candidate for B. ASc., expected graduation in 2021
- Relevant courses: Digital Computation, Data Structures and Algorithms
- 95.5% cumulative average

# **Interests**

- Guitar, cooking, photography, Judo, tea blending
- Hopeful part-time owner of a small café in the near future