

# YAN KE

Mechatronics Engineering at University of Waterloo

 yske@edu.uwaterloo.ca  
 linkedin.com/in/yanske  
 github.com/yanske1  
 yanske.me  
 647 - 262 - 0026

## Skills

- Proficient in **C++**, **Python** and **C**, developed in both **Windows** and **Linux OS**
- Experience with **embedded software**, **soldering** and interfacing with **sensors**
- Familiar with tools including **Git**, **Solidworks**, and **AutoCAD**

## Projects

### APPC Wind Tunnel

- Constructed a wind tunnel to measure aerodynamic forces on 3-D printed airfoils
- Implemented sensors to detect aerodynamic forces and atmospheric data
- Programmed and integrated an **Arduino** microcontroller with **MatLab** to create GUI

### NXT Mindstorm Table Tennis Trainer

- 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 **C**

### EasyPassword (*Ongoing*)

- Exploring cryptography and computer vision by creating a password management app
- Implemented SHA256 hash using **OpenSSL** and public key encryption to store data
- Using **OpenCV** to implement user facial recognition in **C++**

### Sync In | [devpost.com/software/synchin](http://devpost.com/software/synchin)

- Created 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
- Implemented opportunistic code reuses for depreciated code

### Personal Website | [yanske.me](http://yanske.me)

- Created an online portfolio using **HTML**, **CSS** and **Bootstrap**
- Built using **Jekyll** and 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 which effectively handled over 600 applications

### Real Estate Assistant – AimHome Realty Inc. Brokerage July 2015 – Sept 2016

- Developed strong customers service skills and professional mannerisms through communicating with clients

## Education

### University of Waterloo Sept 2016 – Present

- Candidate for B. AsC., expected graduation in 2021
- Relevant courses: *Digital Computation*, *Algorithms and Data Structures*
- 95.5% cumulative average, **first in class** for Fall 2016 term

## Interests

- Machine learning, guitar, cooking, photography, Judo and tea blending
- Hopeful part-time owner of a small café in the near future