

# YAN SONG KE

Mechatronics Engineering at University of Waterloo



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## Skills

**Languages:** C++ (Proficient, 3+ years), Python (Proficient, 2+ years)

**Web technologies:** HTML, CSS, AngularJS

**Tools:** Git, SOLIDWORKS, AutoCAD, Arduino, RobotC, Bootstrap, Jekyll

## Projects

**Syncin** | [devpost.com/software/synchin](https://devpost.com/software/synchin)

Sept 2016

- iOS and web application created to streamline networking in job fairs using **iBeacons**
- Exchanges contacts, resumes and key information between job hunters and employers
- Designed and pair programmed the web application using **AngularJS** and **Firestore**
- Led team discussions through iterations of design process and found opportunistic code reuses for depreciated code

**APPC Wind Tunnel**

Dec 2015 – Feb 2016

- Designed and constructed a wind tunnel capable of detecting aerodynamic forces on airfoils in real time
- Controlled using **Arduino** microcontroller and interfaced through a **MatLab** GUI

**NXT Mindstorm Table Tennis Trainer**

Nov 2016 – Dec 2016

- Designed an autonomous table tennis ball shooter using 3-D printed gears, laser-cut acrylic, and NXT sensors
- Programmed and created user interface in **RobotC – C based language**

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

Dec 2016

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

## Experience

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

Sept 2016 – Present

- Ongoing, implemented filters in **C++** for biomedical signals received from Myo
- Used **support vector machine** to train data sets in **Python**

**Director of Web Operations – TOPS Program Marc Garneau C.I.**

Sept 2012 – June 2016

- Executive of TOPS program website, mentored and managed developer team
- Created online registration and handled user data during admissions period

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

July 2015 – Sept 2016

- Communicated with clients and lawyers to finalize documents and sales
- Researched and documented property information, maintained agent's website

## Education

**University of Waterloo**

Sept 2016 – Present

- Candidate for B. ASc., 95.5% cumulative average
- Relevant courses: *Digital Computation, Data Structure and Algorithms*

**Marc Garneau C. I.**

Sept 2012 – June 2016

- Enrolled in Talented Offering for Programs in the Science (TOPS)

## Interests

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