# Anita Hu

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github.com/anita-hu

# **PROJECTS**

### **FACE RECOGNITION DOOR**

JUL. 2018

Python, OpenCV, Arduino, Tkinter, SQLite

- Designed Tkinter UI to control processes with simple buttons
- Used OpenCV LBPH Face recognizer to train captured images and output a .yml file for face recognition
- Utilized SQLite database to store names in key-value pairs

#### PRESENTATION BUDDY | JAMHACKS2

May 2018

Python, OpenCV, Flask, HTML, CSS, JavaScript

- Flask website designed to give real-time feedback to presentations
- Contains Javascript timer, randomized tips and live OpenCV stream
- Used OpenCV to give feedback on user's facial expression

#### **NEWTSNAP** | THACKS2

OCT. 2018

Javascript, HTML, CSS, jQuery, ocrad.js, responsivevoice.js

- Mobile website that creates notes from the camera using ocrad.js
- Utilized responsivevoice.js to allow users to hear their notes on the go
- Used local storage to store and retrieve notes

#### BIT TO BIN | HACK THE NORTH \$\P\$

SEP. 2017

Python, OpenCV, Arduino, Clarifai

- Used OpenCV with Clarifai API image recognition to sort waste into 3 categories as each item is placed on the opening platform
- Aligned bin lid servos in a slight angle allowing items to roll into the correct bin when dropped from the opening platform

# **EXPERIENCE**

## **CAMP COUNSELLOR** | FULL-TIME

JUL. 2016 - SEP. 2017

Town of Newmarket

- Led age appropriate games, songs and crafts for 25+ campers
- Assisted in direction and supervision of campers during activities
- Responsible for all accident/incident reports and follow up

#### MATH CLUB PRESIDENT

FEB. 2017 - JUN. 2018

Sacred Heart Catholic High School

- Students explore math concepts beyond the curriculum and work on problems in preparation for upcoming math contests
- Led weekly meetings and notified teachers ahead about meeting plans
- Worked with teachers to organize events such as a guest speaker from Waterloo and a team competition against other schools

#### PEER TUTOR

SEP. 2016 - JUN. 2018

Sacred Heart Catholic High School

- Tutored students from Grades 9 to 12 in Science and Math courses
- Assisted students with homework, projects and test preparation
- Provided better understanding of concepts by showing the reason and logic behind them

#### **ENGINEERING CLUB MENTOR**

SEP. 2017 - JUN. 2018

Sacred Heart Catholic High School

- Led club members in the learning and exploration of CAD
- Collaborated with other members to assemble a 3D printer

# **SKILLS**

### **LANGUAGES**

Python • C++ • Arduino • JavaScript • HTML5 • CSS3

Native in English and Mandarin

#### **TOOLS**

OpenCV • Git • AutoCAD • Illustator • Photoshop

# **AWARDS**

## **SCIENCE SCHOLARSHIP**

2018

2018

Community-minded & excellency in Math & Science

## **GE STAR SCHOLARSHIP**

US \$3,000 value

#### FINALIST | HACK THE NORTH

top 14 of 1000 participants

2017

# **EDUCATION**

## **UNIVERSITY OF WATERLOO**

MECHATRONICS ENGINEERING Honors Co-op, 2018 - 2023

> President's Scholarship of Distinction

# INTERESTS

#### MUSIC COMPOSITION

Composed ~30 pieces of contemporary music for piano Runs a YouTube channel for my piano compositions and song covers with 60+ videos

#### SHEET MUSIC

Transcribes sheet music for a variety of music

Shares sheet music on Sheethost account with ~800 followers