Alicia Tran

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EDUCATION

BACHELOR OF ENGINEERING, SOFTWARE AND BIOMEDICAL ENGINEERING
McMaster University, Hamilton ON

- Enrolled in 2nd year of the 5-year Integrated Biomedical Engineering and Health Sciences co-op program
- Cumulative grade point average of 10 on 12 point scale

RELEVANT COURSES

PRINCIPLES OF PROGRAMMING

- Develop knowledge of fundamental concepts in programming in the C language: expressions, control structures, procedures, data structures

SOFTWARE ENGINEERING PRACTICE AND EXPERIENCE

- Understand Unix and shell programming, version control, compiling, debugging, software optimization

DATA STRUCTURES AND ALGORITHMS

- Introduction to algorithmic design strategies
- Correctness and performance analysis

LANGUAGES

- Java
- Python
- C
- HTML
- CSS
- JS

SOFTWARE

- Git
- Unity

EXTRACURRICULARS

MCMASTER MAKERS WEBSITE DEVELOPMENT LEAD
August 2019 – Present

- Create a site using HTML, CSS, and JS to advertise club activities and promote club membership
- Use Google Firebase to implement log-in system for over 80 users
- Design graphic and creative elements to ensure layout and overall look fits the desired aesthetic

MEDHACKS COMPETITOR
September 2019

- Created front-end of website that used Natural Language Processing to match patients with therapists with whom they share common ground in order to optimize culturally sensitive therapy

HACK THE NORTH COMPETITOR
September 2019

- Worked alongside team to create an application that uses a machine learning model created by the Microsoft Azure API to distinguish between different types of waste
- Idea and team were sponsored by RBC

TOHACKS COMPETITOR
June 2019

- Used Microsoft Azure Virtual Machine to develop artificially intelligent integrated threat detection systems that operate in real time to prevent crime and provide a quick response to threats using machine learning and classification algorithms
- Achieved 1st place in the competition

PROJECT WORK

WEARABLE SENSOR DEVICE
January – February 2019

- Collaborated with team to design and program device that measures intraocular pressure for patients with glaucoma
- Wrote Python code and used a Raspberry Pi to integrate proximity sensor and pressure sensor with LED lights to relay information

HIP IMPLANT DESIGN
November – December 2018

- Strengthened inquiry skills by consulting with medical and radiology residents to diagnose patient symptoms
- Wrote Python program to use knowledge of stress and strain to analyze fatigue life and strength of implant
- Used AutoCAD software to design several components of implant