



## Education

### BASc | Engineering Science

University of Toronto | 2018–Present

- 2<sup>nd</sup> year student
- cGPA: 3.78

## Skills

### Software Development

Experienced

Python • MATLAB

Proficient

C • Java

Web/Mobile

Android • HTML • CSS • JavaScript

ReactJS

Databases

SQL

Development Tools

Git • GitHub • Vim • Bash

### General

Languages

English • French • Cantonese

Typesetting

LaTeX • Markdown

OS

Unix • macOS • Windows

## Coursework

### Completed

Data Structures & Algorithms

Linear Algebra

Calculus I & II

Electric Circuits

Computer Programming

Classical Mechanics

### Currently Taking

Vector Calculus & Fluid Mechanics

Digital & Computer Systems

Differential Equations

Thermodynamics & Heat Transfer

Waves & Modern Physics

### Taking Next Semester

Electricity & Magnetism

Quantum & Thermal Physics

Probability & Statistics

Mechatronics

## Engineering Experience

### National University of Singapore | Student Researcher

May–Aug 2019

- Developed a mathematical model for MATLAB simulations of a 1D indirect evaporative air conditioning unit
- Used MATLAB simulations to determine ideal parameter values and design configurations based on various inlet air properties and temperature conditions
- Conducted a detailed literature review and analyzed academic papers to study existing models and experimental data
- Completed a 20-page report detailing my simulation model and research findings

### Trinity Montessori School | Volunteer Developer

Jan–Aug 2019

- Proposed and implemented a bulk SMS messenger application using Twilio's SMS API to enable school staff to quickly notify parents of important news
- Used Python, Tkinter, and PyInstaller to develop a functional desktop application with a simple graphical user interface (GUI)
- Programmed a local SQLite database to store, retrieve, and edit the recipients' contact info

## Technical Projects

### Personal Website - seanwu.io

Sept 2019–Present

- Designed a scalable and mobile-friendly website with responsive web design using HTML, CSS, and Bootstrap
- Researched and learned about domain registrars, nameservers, and DNS hosting

### Android Productivity App - Finite

Dec 2018–Jan 2019

- Collaborated with a partner to create and release an app prototype on the Google Play Store
- Utilized Java, XML, and Android Studio while designing scalable layouts and adding app functionality
- Arranged frequent code reviews, managed a GitHub repository, and organized the assignment and completion of deliverables using a shared online task board

## Awards

Engineering Science Research Opportunity Fellowship (ESROP Global)	2019
Faculty of Applied Science & Engineering Dean's Honours List	2018–2019
Donald C. Leigh Memorial Scholarship Recipient	2018
Faculty of Applied Science & Engineering Admission Scholarship	2018
National AP Scholar (Canada) Award	2018
Governor General's Academic Bronze Medal	2018
Schulich Leader Nominee	2018
28 <sup>th</sup> /1950 – University of Waterloo Sir Isaac Newton Physics Exam	2018
64 <sup>th</sup> /4254 – University of Waterloo Avogadro Chemistry Exam	2017

## Extracurriculars

University of Toronto Triathlon Club

2018–2019