# Yuelin Liu

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Personal Website: https://carennnnn.github.io/

#### **EDUCATION**

### **Bachelor of Computer Science Honors, Co-op Option**

September 2019 - Present

Mobile Computing Stream, Minor in Statistics

Carleton University, Ottawa, ON

- Third year standing, 11/12(A)
- Entrance scholarship, 2019
- Dean's Honor List, 2019-2020
- Expected Graduation Date: April 2023

### **AVAILABILITY**

Available for 4, 8, 12 or 16 months beginning May 2021

### Languages

Python, Java, C, Android Studio, X code, HTML, CSS, Javascript, Node.js, Express.js, REST APIs, Mongoose, Pug, Git, R

#### **WORK EXPERIENCE**

#### **Teaching Assistant**

September 2020 – December 2020

Carleton University, Ottawa, Ontario

- Held office hours each week to answer student's questions in COMP 2804 Discrete Structure II to help them
  have a better understanding of the course material
- Graded assignments and wrote feedbacks to let students know where they made a mistake
- Helped students with their assignments by clarifying each question and leading them to some of the proofs of the questions

#### **Technical Skills**

- Created a web application that is similar to the internet movie database which supports users to register, login, logout by implementing session, allows users to search for movies by title by using <u>REST APIs</u>, supports them to add movie links to the movie database by implementing <u>mongoose</u>, and provides similar movies to the users. This project is done by using html, css, JavaScript, node.js, express.js
- Programmed an examination that takes the images and attempts to determine whether the conveyor belt is broken by using <u>java</u>, recursively reduced the time to find the broken part
- Built a graphical user interface to simulate an electronic store that sells stock and shows user the most popular items by implementing model/view/controller paradigm in <u>java</u> to enhance the user experience
- Wrote a program that models a chess game and assesses who is winning by using two-dimensional list and nested loops in <a href="https://python.org/python.org/">python</a>
- Created a program that uses <u>pygame</u> to perform a chroma-keying operation to merge two images by overlaying a semi-transparent image of the ghost on top of the background, centered at a point defined by the user
- Developed a program in <u>C</u> in the <u>Ubuntu Linux environment</u> that uses multi-threaded programming techniques and a character-based graphics library to simulate a race between a tortoise and a hare to make their way up the mountain in randomized moves and let dorcs that are randomly generated from the top of the mountain to attack them

#### **Communication Skills**

- Mentored a first-year female Computer Science student by helping her to transition from high school to university, guiding her through study tips, extra-curricular activities and internships to navigate her future directions
- Collaborated with four team members to discuss html and CSS styles that are related to the course and wrote a summary in order to have a deeper understanding of the course content
- Answered students' questions while holding office hours to make the points that students are confused about clear as a teaching assistant

#### **APPLIED PROJECTS**

## Designer

September 2020 - December 2020

Movie database website

- Created a web application that's similar to the internet movie database by using html, css, javascript
- Built a server by using <u>node.js</u> and <u>express.js</u> to serve my website and deployed my application to OpenStack to test it
- Utilized template engine(pug) to produce dynamic web pages by giving users different home pages
- Used REST API to support routes and parameters by interacting clients to create/read/update/delete resources
- Created log in/out and identified the user by using sessions to persist state information between page requests

## Designer

January 2020 - February 2020

Tic Tac Toe App

- Made beautiful GUI buttons to attract users by using Android Studio
- Enforced the rules of the game and decided whether the game has been won or it is ended in a draw to ensure the game is fair
- Automated the game so that users can fight with the computer to increase users' playing time
- Conducted a presentation on the algorithm of the project to a non-technical audience to help him comprehend the principle behind the game