

HAOYAN (HARRY) WANG

✉ haoyan.wang@mail.utoronto.ca ☎ +1 (416)605-9158 📍 75 St. George Street, Toronto, ON 🌐 Marvel0usx

EDUCATION

University of Toronto

Honours Bachelor of Science Statistics 2022

Honours Bachelor of Science Computer Science 2022

McLean J. S. Supplementary Scholarship, Sept. 2018

Sept. 2018 - June 2022

SKILLS

PROGRAMMING LANGUAGES: Python, C, R, Java, Verilog

PYTHON DEVELOPMENT EXPERIENCE: Numpy, SQLite, Tkinter, Threading, Flask, BeautifulSoup, Google Cloud API, Seaborn

SOFTWARE DEVELOPMENT SKILLS: Git, XPath, Batch, Android, Adobe CC Suite

PROJECTS

Game of Life Visualizer (Python, C) <https://github.com/Marvel0usx/game-of-life>

Jan. 2020 - Current

A program written in Python and C that visualizes Conway's Game of Life.

- Written modules in C using **CPython** to boost the speed of the program.
- Used Python **tkinter** for multithreaded GUI presentation.
- Used **SQLite** database for serialization.

Emotional Youtube (Python) <https://github.com/Marvel0usx/Hack2019>

Jan. 2019 - Jan. 2019

A Web App runs emotional analysis on real-time feedbacks of Youtube video and generates a recommendation report for its user.

- Cleaned and categorized a huge amount of data gathered from calling Google **Youtube Data API**;
- Used Google **NLP API** for emotion analyzing to find the attitude towards the video and to find the most mentioned adjective;
- Generated tag clouds of the most mentioned adjectives for each video to make a recommendation for the user, informing them of the content and the quality of the video.

Bookable (Python) <https://github.com/Marvel0usx/Bookable>

July 2019 - Sept. 2019

A real-world solution to help with badminton courts reservation at the University of Toronto.

- Applied multithreaded programming to drive **Selenium** and use **Tkinter** for GUI;
- Written a generic GUI framework that contains buttons, check buttons, state bar, navigation bar, entries, and prompts;
- Used **BeautifulSoup**, **Xpath**, and **Regex** module to parse and locate web elements.

Game Hub (Java) <https://github.com/Marvel0usx/GameHub>

Oct. 2019 - Dec. 2019

Game Hub, an Android mobile APP, provides players with different games to play with, including Space Invaders, Tower Defence, and Hangman.

- Worked with a team of six and collaborated with a partner in developing the Space Invaders;
- Designed a full-functioning **Android** game, Space Invaders, from scratch in two months and took intensive care on the design patterns;
- Employed Google Lifecycle and Observable techniques to deploy an **MVVM design pattern**;

EMPLOYMENT

Beijing Foreign Studies University, Assistant Researcher

Sept. 2016 - June 2017

- Finished fifteen structured interviews with students;
- Written a research report about the A-Level, AP, and IB international curriculum and students in a team of three;
- Given a speech about the research result on *Beijing Foreign Studies University 3rd International Education Forum*;
- Published the research report in *2016 Annual Report of Chinese Foreign Language Education* and the journal *English Language Learning*.

ACTIVITIES

Hack the North, Contest Participant

Sept. 2019 - Sept. 2019

- Adapted quickly to unfamiliar tasks - Web developing - and managed to work with other developers and data analyst who were unknown to me;
- Improved communication skills and time managing skills through constantly engaging in team discussions and task scheduling;
- Learned a new technique - Firebase - to host and to provide user authentication, as well as database for Web App.

Google Code-in Programming Competition Contest Participant

Dec. 2016 - Jan. 2017

- Contributed code to the open-source game organization, Terasology, and in turn, mastered git;
- Completed five code challenges in the contest, including add new utilities to the game, create new game modules, and write documentation.