# Alan Hu

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#### **Education**

# Bachelor of Applied Science in Engineering, Queen's University, Kingston ON

Sept 2022 - Present

2<sup>nd</sup> Year Computer Engineering at Smith Engineering

# **Work Experience**

Engineering Building Supervisor, Engineering Society of Queen's University, Kingston ON

Sept 2023 – Present

- A resource to engineering students in the Queen's Engineering Building by supervising the building after faculty hours.
- Providing students access to special equipment in the engineering building which includes Arduinos and analogue circuits.

### Apprentice Sprinkler Fitter, Vortex's Fire Protection, Toronto ON

June 2021 – Sept 2021

- Collaboration with teammates to cut openings that accommodate for specific pipe sizes.
- Reviewed blueprints and project specifications to determine the correcting plumbing solutions at 3 different sites.
- Calculated the point loads of the pipes to ensure proper strength and instalments of plumbing solutions.

#### **Co-Curricular Activities**

Data Analyst Coordinator, Queen's Data Analytics Association, Kingston ON

April 2024 - Present

- Hold tutorials and talks on topics such a s Data Engineering/Mining, Statistical Analysis, Cloud Computing, Data Visualization and Presentation, and Sector-Specific Data Analytics.
- Working with companies and design-teams to extract data and identify valuable data patterns, trends, correlations, etc. from datasets.

IT Operation Manager, Engineering Society of Queen's University, Kingston ON

April 2024 – Present

- Leading a team of students responsible for handling IT-related duties, which included resolving IT support tickets, overseeing user accounts in Microsoft Azure, and maintaining the operational integrity of EngSoc IT infrastructure.
- Understanding the core functions of an organization's IT system to develop and implement monitoring solutions for the Engineering Society's IT infrastructure, acquiring skills in server management and network security.

**Enactus,** Oueen's University, Kingston ON

Sept 2023 – April 2024

- Working with a team of seven to create innovative and self-sustaining projects/businesses that advance the economic, social, and environmental health of communities around the world.
- Presenting to Enactus bi-weekly to discuss potential sustainable business solutions that improve the social, economic, and environmental well-being worldwide.

### Engineering Orientation Committee Member, Queen's University, Kingston ON

Nov 2022 – Sept 2023

- Teamwork and collaboration with 15 other committee members to oversee upcoming 2023 orientation week for 1000 first year engineering students.
- Hired, managed, and trained 400 orientation week leaders.
- Created an itinerary plan to oversee risk, safety, numbers of students, etc.

#### **Projects**

## Pacman Game

- Developing a working Pacman game in C
- Utilized concepts of recursion to simulate an enemy non-playable character.

#### **Excel Spreadsheet**

- Using data structures and algorithms to mimic the functionality of excel spreadsheet.
- Concepts of linked lists and arrays to create dependencies for each cell.

#### To Do List Website

- Created a To Do List website using Python libraries Flask and SQLAlchemy, HTML, and CSS
- User inputs their task, storing it inside a SQL database and outputting the task using Python.

# Walking or Jumping Prediction Model

- Designed a machine learning desktop app to distinguish whether a dataset was jumping data or walking data.
- Visualized the data in various ways, preprocessed the data by filtering the data using simple moving average.
- Added features and normalized the data to train the classifier.

#### **Skills**

- Programming: C, HTML/CSS/JS, Python, SQL, Java
- Tools: Microsoft Office, Microsoft Word, Microsoft Excel, GitHub, and Solidworks