

# Yuejia (Roger) Guo

Waterloo, ON

(437)818-9423

[y52guo@uwaterloo.ca](mailto:y52guo@uwaterloo.ca)

[y52guo.github.io](https://y52guo.github.io)

## SUMMARY OF QUALIFICATIONS

---

- Proficient in software development using programming languages including Python, C++, C
- Solid data analytics and presentation skills gained from past internship and project work
- Experienced in developing and optimizing machine learning models using Python and scikit-learn
- Skilled in effective communication and teamwork, leading projects and fostering collaboration

## EXPERIENCE

---

### Business Planning and Operation Intern

June 2022 – August 2022, Remote

*Visa Inc.*

- Collaborated with the NYU Shanghai Student Association to design and execute a research project from end to end on the motivation of international student credit card applications
- Developed and implemented data collection process, leveraging tools such as Google Forms and **Python** scripts to gather and process 2000+ data points from a diverse student population
- Analyzed data using **Python** to identify key motivators and influence factors, and built a visualization dashboard using **Tableau** to present the findings
- Authored a detailed research report and presented in front of senior management. The report now serves as the strategic reference for future credit card acquisition and benefit design

## PROJECTS

---

### Chess Game

Sep 2024 – Present

- Led a team of three that designed and developed a CLI version of the chess game using **C++**
- Employed object-oriented design and utilized design patterns to integrate different game components

### GTA Real Estate Price Prediction

Aug 2024 – Sep 2024

- Leveraged machine learning to analyze and predict current real estate prices in the GTA region
- Developed a web scraper using **BeautifulSoup** and **requests** libraries in **Python** to retrieve data from MLS
- Implemented decision tree and random forest model using **scikit-learn**, performed hyperparameter tuning, and evaluated model performance with mean absolute error (MAE)
- Performed data cleaning and created visualization using **Pandas** and **Matplotlib**

### Flight Info Dashboard

May 2023 – Aug 2023

- Designed and developed a flight tracking system in **C** to streamline the process of searching flights
- Utilized Abstract Data Types (ADT) to create a new data structure that simplified data management
- Implemented dynamic memory management with smart pointers and debugged memory with **GDB**

### Economic Data Analysis

May 2024 – Jun 2023

- Analyzed cost of living datasets using **R**, performed data cleaning and structured the data into tables
- Created multiple analytical tables and generated charts to visualize the GDP growth of 10+ countries

## EDUCATION

---

### Bachelor of Computer Science, Data Science

Sep 2023 – Present

University of Waterloo, Waterloo, ON

- **GPA:** 3.9/4.0

## SKILLS

---

- **Technical Skills:** Python, SQL, R, C, C++, Linux, Git, Pandas, Matplotlib, HTML, CSS
- **Communication:** Fluent in English & Mandarin