

# Jason Huang

✉ jason.huang1@uwaterloo.ca 🌐 huangjason.com 📞 (416) 564-7669 in jason17huang 📺 jason17h

## SKILLS

**BACK END:** Python, C, C++, Django, SQL

**FRONT END:** JavaScript, React, Redux, HTML, CSS, Bootstrap

**DATA ANALYSIS:** pandas, NumPy, scikit-learn, Dash, Matplotlib

**MISC:** Bash, Fluent French, Public speaking, Design thinking

## EDUCATION

**University of Waterloo**

Fall 2018 to Present

**B. Computer Science, Spec. in Human-Computer Interaction**

CS Major Average: 89.86

Term Dean's Honours List: Winter 2019, Spring 2020

Coursework: Algorithms, Data Structures, OOP (C++)

## EMPLOYMENT

**Software Engineer**

Dec. 2020 to Present

**Sourced Fact** · Remote, Contract

- Revamped the UX by creating customizable UI components with **React**, **Flux** and **JavaScript** to let users seamlessly fact check online articles
- Streamlined the software development process by refactoring existing React components and Flux stores to greatly improve reusability, scalability and maintainability

**Quantitative Models Intern, Portfolio Engineering**

Sept. 2020 to Dec. 2020

**Canada Pension Plan Investment Board** · Toronto, ON

- Managed the allocation of \$400+ billion in CPP funds by modelling key portfolio metrics using **graph theory**, **linear algebra**, and **data manipulation** techniques with **Python**, **pandas** and **NumPy**
- Enhanced the scalability of quant tools by redesigning algorithms to reduce runtime/space and modularizing code to increase cohesion
- Researched the efficacy of various **NLP models (TF-IDF, GloVe, BERT)** in extracting valuable insights from news articles and pitched the most effective option in achieving department goals
- Performed in-depth data exploration using **principal component analysis**, **LDA topic modelling** and **k-means clustering** to refine ML models and effectively communicated findings to a non-technical audience

**Python Engineering Intern, Quantitative Strategies & Risk Premia**

Jan. 2020 to Apr. 2020

**Canada Pension Plan Investment Board** · Toronto, ON

- Developed a data analytics platform using **Python**, **pandas** and **SQL** to detect trends and outliers across millions of data and ensure clean and correct inputs to crucial investment processes
- Significantly improved the reusability of all department-wide data engineering tools by introducing and implementing an **in-house data structure** to normalize different datasets into a uniform structure

**Software Engineering Intern**

May 2019 to Aug. 2019

**Worldsource Wealth Management Inc.** · Markham, ON

- Developed a web application using **Django**, **Python** and **SQL Server** to facilitate succession planning between financial advisors
- Designed an algorithm using Python to match advisors based on profile, book of business, and clientele compatibility
- Created two calculator applications using **React**, **Redux** and **Firestore** to measure the cost and suitability of an investor's portfolio
- Researched, documented, and successfully pitched three investment tools to industry leaders and potential clients to help the company grow and retain its assets by collaborating with a team of senior executives

## PROJECTS

**STEMSearch: Intelligent Research Assistant**

Mar. 2020

- Used **Dash** to create an intelligent academic paper recommender based on titles and abstracts with an interactive COVID-19 dashboard
- Refined **NLP machine learning model** parameters by analyzing millions of text data from arXiv and CORD-19 using **pandas** and **NumPy**
- Implemented **k-means clustering**, **TF-IDF** and **cosine similarity** with scikit-learn to recommend similar articles and extract key terms

**FYOUZE: Social Media Fuse - Hack The North 2019**

Sept. 2019

- Developed an application with Python, Selenium, Flask and various social media APIs to seamlessly consolidate users' social media channels
- Enhanced UI/UX using HTML, CSS, Bootstrap, and JavaScript

**WeHack: Hackathon Networking Platform - EngHack 2019**

June 2019

- Conceptualized and developed a web-based hackathon portal application using a **design thinking** approach and **Django** implementation

## LEADERSHIP

**Vice President** · Waterloo Debate Society

Aug. 2019 to Aug. 2020

- Coached university-level debaters in argumentation, critical analysis, presentation and more through weekly workshops
- Organized tournaments to engage high school/university students across North America in meaningful discussions on current global issues