

# HeYang Yuan

647-667-3854 | [yuanheyang1232@gmail.com](mailto:yuanheyang1232@gmail.com) | [Linkedin](#) | [GitHub](#) | [Portfolio](#)

---

## EDUCATION

**York University**

**Sept. 2019 - June.2024**

**Honour Bachelor of Computer Science**

- Relevant Coursework: Machine Learning and Pattern Recognition, Data Mining, Design and Analysis of Algorithms, Database Systems, Data Structures, Computer Organization, Advanced OOP, etc.
  - 2024 Winter: Member of Dean's Honour Roll
- 

## TECHNICAL SKILLS

**Programming Languages:** Python, C, C#, C++, Java, Django, JavaScript, Typescript, Ruby, RVS

**Database & Frameworks:** MySQL, Flask, Django, MongoDB, jQuery, SQL, Pytorch, Tensorflow, Android

**Web Development:** HTML, CSS, JavaScript, Node.js, Wordpress, React

**Tools & Technologies:** Git, GitHub, Agile, Visual Studio, Blazepose, Mediapipe, JIRA, Linux

---

## WORK EXPERIENCE

**Undergraduate Researcher (Full-Time Contract) - York University**

**Sept - Dec 2023**

*Technologies involved: Python, Blazepose, Mediapipe, Pytorch, Tensorflow, MySQL, CSV, Numpy, Bert, LSTM, GRU*

- Collaborated with graduate and PhD researchers under the guidance of a top 2% researcher to develop a gloss-free Japanese Sign Language (JSL) translation model, facilitated easy extensions.
  - Extracted and processed data using OpenCV and Sbert, achieving over 90% accuracy in capture the key gestures by applying linear and median interpolation to handle missing frame tracking points.
  - Improved accuracy by 14% by optimizing the LSTM model and data preprocessing instead of GRU model. Reduced rendering time by 73% through the use of BlazePose and MediaPipe for efficient pose detection.
  - Successfully delivered a fully functional solution coordinating efforts across diverse technical.
- 

## PROJECTS/PROFESSIONAL EXPERIENCE

**AI Consultant-Project Matching System - Full Stack**

*Technologies involved: Javascript, React, Node.JS, HTML, CSS, Github, SQL, Pyhon, APIs*

- Achieved a Top 3 finish in a Hackathon by building an AI-powered recommendation engine to match consultants with projects based on skills, experience, and project requirements.
- Collaborated with a cross-functional team under the guidance of Jarvis co-founders.
- Led data analysis, optimizing recommendation accuracy.
- Developed a full-stack web application using React, enhancing user experience with styling and animation.
- Ensured smooth progress tracking, integration, and early delivery for testing and optimization.

**Sentiment Classification of Yelp Reviews**

*Technologies involved: Python, BoW, Text Embedding, Bert, Pytorch, Tensorflow, NLP*

- Analyzed over 120k Yelp reviews to predict whether user feedback was positive, neutral, or negative based on comments, addressing challenges in natural language processing and sentiment analysis.
- Applying mixed-precision training in PyTorch, cutting training time by 80% and speeds up model iterations
- Achieved over 85% accuracy for all classification models, delivering reliable, high-performance results for real-world applications and providing deeper insights into customer sentiment.

**Automate Time Management Calendar**

*Technologies involved: Python, Google Calendar API, pygetwindow*

- Developed a system to track software usage trends, capturing active program durations and daily totals to enhance time management and productivity analysis.
- Utilized the pygetwindow library and implemented a polling mechanism to monitor active windows with second-level accuracy, overcoming challenges with program switching and background execution.