YIFEI YIN

(343) 333-2958 | yifei_yin@queensu.ca

I am a Queen's Computing Alumnus with excellent academic records, collaborative skills and work ethics, looking for a full-time employment in the software/machine learning industry.

EDUCATION

Queen's University **September 2017 – May 2020**

Bachelor of Computer Science, Honours – Artificial Intelligence Option
GPA 3.95, Dean's Honour List with distinction (top 3%)

WORK EXPERIENCE

WaiveTheWait, Queen's Innovation Centre **May 2020 – Present**

Co-Founder/CTO - Engineering and Research

- Developed web application with **Django**, **Firebase** and **Apache** to serve dynamic websites in CSS, HTML, JS and TS
- Served ~10k system transactions daily with asynchronous thread design using the Actor Programming Paradigm
- Collaborated on researching Machine Learning model (**PyTorch**) wait time prediction, 9% error rate (state-of-the-art)
- Built **REST** API interfaces for integration with top medical software (OSCAR, AccuroEMR)
- Won $21,250 funding from the **largest local pitch competition** and was accepted to the famous incubator - **NEXT36**

Speech Perception and Production Lab, **Queen's University** **April 2019 – April 2020**

Research Assistant

- Developed deployed C++ program for real-time signal processing with 1,400% higher memory limit for x64 systems
- Performed temporal analysis in **NumPy** (**Python**), published at the **Journal of the Acoustical Society of America**
- Collaborated with Epic Games and used Apple's ARKit to develop facial tracking system at 60Hz

Queen's Machine Intelligence and Neural Design Team (QMIND) **April 2018 – May 2019**

Education Coordinator

- Facilitated and coordinated educational events and speaker series for QMIND members throughout the year
- Produced, edited and reviewed Introduction to AI (Python) which is read by hundreds of students

EXPERIENCES AND PROJECTS

Big-Data Analytics and Laboratory, Queen's University **March 2019 – July 2020**

Researcher – Deep Natural Language Processing

- Designed neural networks with state-of-the-art prediction accuracy at 91.7%
- Published at **PICom2020 International IEEE Conference** and received the **Best Student Paper Award**
- Innovated BERT (**TensorFlow**) to read unstructured text documents for legal outcome prediction, F1=86.7
- Implemented efficient data storage which allowed model fine tuning training process to be 40 times faster

Reinforcement Learning Course **February 2020 – May 2020**

Course Project – Mario Game with Double Deep Q-Learning & Deep Q-Learning CNN

- Developed a Deep Convolutional Network (**CNN**) to finish the Super Mario Game in **PyTorch**
- Increased 2.1 times in model training speed by designing data structure that utilizes RAM more efficiently

Neural Networks and Cognitive Models Course **February 2019 – May 2019**

Course Project – Hand-written Character Recognition

- Implemented **RNN** and **CNN** with Attention in TensorFlow for Hanzi recognition with 92.5% accuracy
- Converted binary stoke information from a handwritten collector to python list representations
- Optimized parameter size to achieve more than 40% speed up in model training with little performance penalty

Queen's To Go **April 2018 – December 2019**

Project – Android App Development

- **Google Play Store Top 5 Trending Tools, Top 50 Movers & Shakers**
- Created and maintained an **Android** application using **Android Studio** and **Java**
- Designed the application backend for storage and processing
- Debugged the android application for different hardware specifications such as resolution