AARON YIN

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Education

Honours, Bachelor of Computing, Queen's University, Kingston, ON   **September 2017– May 2020**

- GPA 3.96, Dean's Honour List
- Fast-tracked the 4-year program in 3 years
- Data Structure, Algorithms, Artificial Intelligence, Image Processing and Computer Graphics, Brain and Behaviour, Syntax, Reinforcement Learning, Neural and Genetic Cognitive Models, Cognition and Computation, Fuzzy Logic, Undergraduate Thesis

SOFTWARE SKILLS

Proficient: Python, Java, SQL, Linux, Git   **Familiar:** MATLAB, C#, C++, JavaScript, Haskell, HTML5, CSS
Mobile/Web Dev: Django, Firebase, Android Studio, Google   **Data Science:** PyTorch, TensorFlow, Keras, NumPy, MATLAB,
Cloud Platform, Agile Development   SciPy, Sci-kit learn

PROJECTS

Researcher, Big-Data Analytics and Management Laboratory   **March 2019 – July 2020**

- Used **NumPy**, **TensorFlow** and **PyTorch** (**Python**) for supervised learning
- Designed neural networks which achieved state-of-the-art prediction accuracy (published)
- Innovated BERT for predicting outcomes by reading unstructured text and documents (state-of-the-art)
- Enabled Agile Development of different models by designing efficient data storage

Course Project, Neural Networks and Cognitive Models   **2019 Winter**

- Implemented RNN and CNN with Attention in **TensorFlow** (**Python**) for character recognition
- Increased model training time by designing a custom distributed computing platform

Course Project, Reinforcement Learning   **2019 Winter**

- Implemented several Deep Reinforcement Learning models for machine learning tasks in **PyTorch** (**Python**)
- Increased 2.1x in model training time by designing data structure
- Wrote project report about the design process, theory and performance analysis

Project, Queen's To Go, Kingston, ON   **April 2018 – Present**

- 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 phones
- Google Play Store Top 5 Trending Tools, Top 50 Movers & Shakers

Experience

Software Developer Intern, Queen's University Innovation Centre, Kingston, ON   **April 2020 – Present**

- Backend development with **Django** and **Firebase**
- Integrated with Electric Medical Record systems and their **SQL** databases
- Designed asynchronized threads and data structures for **Django** on **Linux**
- Implemented machine learning models for health informatics with **PyTorch**
- Agile development in **production** environment in clinical applications

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

- Used **C++** for real-time signal processing and analysis
- Performed temporal series analysis in **Python** with **NumPy**

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

- Facilitate educational events and speaker series for members of QMIND
- Produced, edited and reviewed *Introduction to AI* (**Python**)