Theodore Wu

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Education:

University of Toronto | Toronto, Canada | *2018-2023*

Bachelor of Applied Science (BASc) in Engineering Science, Major in Machine Intelligence

- **cGPA:** 3.95/4.0
- **Awards:** University of Toronto Scholars Program, Dean's Honours List, Engineering Science Award of Excellence.
- **Relevant Coursework:** Machine Learning, Artificial Intelligence, Data Structures and Algorithms, Distributed Systems, Software Engineering, Operating Systems, Databases, Computer Security, Digital and Computer Systems.

Technical Skills:

Python | PyTorch | TensorFlow | Keras | Java | SQL | C/C++ | Scala | Spark | MATLAB | Cadence SKILL

Work Experience:

Amazon Canada Fulfillment Services, ULC. Vancouver, Canada

Software Development Engineer Intern | Summer 2022

- Designed and implemented a data analysis and visualization tool that provides insights on service runtime logs.
- Leveraged various AWS technologies such as RedShift, EMR, and Lambda through Python, Scala, SQL, and TypeScript.
- Reduced theoretical time-to-resolution for a historical high-severity ticket from the scale of dev-hours to dev-minutes and identified a group of clients producing potential inefficiencies within the system.

Huawei Technologies Canada Co., Ltd. Markham, Canada

IC Lab Assistant Machine Learning Engineer | Summer 2021 – Spring 2022

- Designed and deployed a machine learning tool using Python to estimate electrical properties during circuit design.
- Integrated tool with designer workflow using a PyQt user interface and backend support using Cadence SKILL.
- Tested and verified the tool's performance through iterative feedback and intensive collaboration with senior designers.

University of Toronto Multimedia Lab. Toronto, Canada

Research Intern | Summer 2020

- Co-authored a research literature survey of over 700 works in the field of computational pathology.
- Submitted survey as journal paper to "Medical Image Analysis". Preprint available at: https://arxiv.org/abs/2304.05482.

Notable Projects:

Fault Classification in Connected Autonomous Vehicles (CAVs) | *Undergraduate Thesis*

- Designed a transformer-based deep learning model in PyTorch to classify CAV faults using vehicle velocity profiles.
- First author for an accepted contributed paper to ICRA London 2023.

Persistent, Scalable, and Replicated Distributed Key-Value Storage System | *Academic (Group Project)*

- Implemented a persistent distributed key value storage system in Java with consistent hashing and replication features.
- Designed communication protocols for server node addition/removal, data replication, and server-client interaction.

Deep Recurrent Attention Model | *Research*

- Implemented a deep learning model in TensorFlow intended for use in tissue sample classification.
- Achieved 95% classification accuracy on MNIST, which approaches the results from the original paper.

Leadership Positions:

VP Academics – University of Toronto Machine Intelligence Student Team | Summer 2021 – Summer 2022

- Supervised the creation and operations of an ML study group, a paper reading group, and various ML student projects.
- Organized a large-scale club event with distinguished academic speakers on the ethics of AI.

Co-President – Skule Badminton Club | Summer 2020 – Summer 2021

- Mobilized a team of executives to implement events and create a favorable club experience for members.
- Ideated digital events and reformulated the executive team to transition the club through a virtual semester.