Zhuoran Wang

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Education:

Sep 2021 - Present

Bachelor of Applied Science, Computer Engineering

University of Toronto

- Minor in Artificial Intelligence Engineering and Engineering Business
- Cumulative GPA: 3.95 / 4
- University of Toronto Scholar; Dean's Honor List for every semester

Professional Experience:

May 2024 - Present Machine Learning Researcher

Huawei Canada

- Conducted research in Computer Vision and Diffusion-related topics.
- Followed and presented up to date research papers for weekly group meetings.
- Designed and implemented modular adapters on UNet and Transformer-based Diffusion models for fine tuning with limited data and computation power.
- Authored a paper currently in submission to CVPR 2025.
- Contributed to testing and debugging of new features in the Huawei Nova 70 phone.

Sep 2023 - Present

Researcher, Far Data Lab

University of Toronto

- Collaborated with Professor Qizhen Zhang to explore federated learning.
- Conducted experiments evaluating the effect of federated settings on state-of-the-art models for language, image, video and audio tasks.
- Built a data preparation pipeline for federated learning.
- Authored and submitted a research paper to the ACM Web Conference.

Projects:

Oct 2024 - Present

Web Director, UTRA

University of Toronto

- Led the renovation of the club website using HTML5.
- Redesigned and implemented a modernized site structure and styling.

Sep 2023 - Dec 2023 **Team Lead, Deep Learning Course Project**

University of Toronto

- Analyzed accelerometer data to enable large-scale sleep monitoring studies.
- Applied RCNN models to address object detection challenges in sleep pattern analysis.
- Authored an ICLR-style research report detailing findings and methodologies.

Jan 2023 - May 2023 GIS Developer, Course Project

University of Toronto

- Developed a comprehensive Geographic Information System (GIS) application using
- Implemented the A* algorithm for efficient and accurate route-finding.
- Authored technical documentation and conducted state-of-the-art reviews.

Skills:

Programming Languages: Python, C++, HTML5

Frameworks & Tools: PyTorch, Diffuser, Federated Learning platforms (flower),

Research Focus: Computer vision, diffusion models, federated learning