

An Cao

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EDUCATION

University of Toronto (UofT)

Sep 2024 – Dec 2025

Master of Science in Applied Computing (AI concentration) - GPA: 3.90/4.0

Toronto, Canada

- *Vector Scholarship in Artificial Intelligence*

Huazhong University of Science and Technology (HUST)

Sep 2020 – Jun 2024

Bachelor of Engineering in Software Engineering (AI track) - GPA: 3.96/4.0

Wuhan, China

- *Excellent Undergraduate Graduates, Merit Students, Outstanding Undergraduates in Academic Performance*
- *Authored a conference paper and a SCI Q1 Journal paper in CV as the first author at HUST Deep Learning Lab*
- *Finished 3 CV projects at HUST Deep Learning Lab as a core researcher of model and algorithm design*

TECHNICAL SKILLS

- **Functional:** *Machine Learning, Deep Learning, Computer Vision, AI, NLP, LLM, FinTech*
- **Tools:** *Python, Pytorch, Langchain, Vector Database, AWS, RabbitMQ, Docker, FastAPI*

EXPERIENCE

Modiface

May 2025 – Present

Role: Machine Learning Intern

Toronto, Canada

Project: Selfie Foundational Model

Keypoints:

- Developed an interactive multimodal VLM for beauty/medical sector tasks, enabling user-tailored insights from selfies
- Enabled the multimodal VLM to predict concerns with accuracy comparable to professional experts
- Integrated segmentation capabilities to enhance the explainability of the multimodal VLM with masks of skin concerns
- Built a multimodal dataset with LLMs and face landmark tracking models for training the VLM based on selfie images

Vector Institute

July 2025 – Present

Role: Technical Assistant

Toronto, Canada

- Delivered comprehensive hands-on technical support to the development of Agentic AI projects
- Contributed to the system design process for LLM-driven product solutions.

Vector Institute

Sep 2024 – May 2025

Role: Machine Learning Associate

Toronto, Canada

Project: DiligenceGPT

Keypoints:

- Created a multimodal data ingestion system to organize information from 1000 unstructured data sources
- Built an AI due diligence system that offers consistent quantitative evaluations and in-depth analysis
- Developed a RAG-based chatbot for instant Q&A with sourced answers from a vector database
- Implemented an AI agent to provide minute-level real-time business insights from dynamic data sources
- Facilitated large-scale and asynchronous AI services to smooth demand peaks

Project: Conversational Audience Builder for Synthetic Society

Keypoints:

- Developed a dynamic vector search system with query decomposition, boosting attribute retrieval recall to 89%
- Built a Reranking&Validation module to enhance LLM output consistency and stability
- Created a conversational agent for interactive customer profile building in the synthetic society of 60,000 attributes.
- Prototyped a streaming backend on GCP to support real-time interaction between LLM outputs and users

PUBLICATIONS

[Diff-STAR](#) (Accepted by IMAVIS, SCI Q1)

Sep 2023 – Aug 2024

A. Cao and G. Shen, “Diff-STAR: Exploring student-teacher adaptive reconstruction through diffusion-based generation for image harmonization,” *Image Vis. Comput.*, vol. 151, p. 105254, Nov. 2024, doi: 10.1016/j.imavis.2024.105254.

[LisaCLIP](#) (Accepted by IJCNN as ORAL)

Sep 2022 – Feb 2023

A. Cao, Y. Zhou, and G. Shen, “LisaCLIP: Locally Incremental Semantics Adaptation towards Zero-shot Text-driven Image Synthesis,” in 2023 International Joint Conference on Neural Networks (IJCNN), Jun. 2023, pp. 1–10. doi: 10.1109/IJCNN54540.2023.10191516.