

# BARRY TRAN

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## EDUCATION

### University of Adelaide

Adelaide, SA

Bachelor of Computer Science (Advanced), GPA: 7.0/7.0

July 2023 – June 2026 (Expected)

**Relevant Coursework** Algorithm Design & Data Structures, Artificial Intelligence, Computer Vision, Statistical Modeling & Inference, Optimization, Web & Database Computing, Computer Systems,...

## EXPERIENCE

### Lyra Technologies

Software Engineer Intern

Mar. 2025 – Present

### Canva

Machine Learning Engineer Intern

Dec. 2024 – Feb. 2025

- Fine-tuned open-source Large Language Models like Llama and Mistral for Design Relayout, improving spatial reasoning and achieving a 20% improvement in layout quality, evaluated through manual review.
- Researched advanced LLMs methods like Vision-Language Models, GraphRAG, and Diffusion to enhance Design Relayout with fine-tuned LLMs and conversational reasoning techniques.

### Australian Institute for Machine Learning

Undergraduate Research Student | BBVisual Lab - Supervisor: Prof. Minh Hoai Nguyen

Jul. 2024 – Present

- Research Topic: "Open-world Class-Agnostic Visual Counting"

Summer Research Intern - Supervisor: Dr. Antonios Perperidis

Nov. 2023 – Feb. 2024

- **Research Topic:** "Exploring 4D X-ray Velocimetry (XV) Imaging and Machine Learning for the Detection and Monitoring of Cystic Fibrosis Disease in clinical Data."
- Developed an ensemble model with feature extraction that achieved an impressive 89% accuracy in its results.

### MIT Media Lab

Research Intern | MIT Adelaide Living Lab - Supervisor: Tobin South

Feb. 2024 – Oct. 2024

- **Research Topic:** "Benchmarking Backdoor Attack fine-tuning methods in Diffusion models"
- Researched various aspects of AI backdoor attacks, and its application in sub-fields like advertising, security, etc.

## PROJECTS

**AI Product Photoshoot Wizard** | GenAI, StableDiffusion, Streamlit, Docker, Python

- Created AI product photography tool using Google Gemini and DreamBooth fine-tuned Stable Diffusion
- Built a Streamlit interface and used Docker, leveraging CI/CD with GitHub Actions for seamless deployment

## COMMUNITY INVOLVEMENT

### Adelaide University Mathematics Society

President ← Second-year Representative

Oct. 2023 – Mar. 2025

- Led the society's growth to over 300 members by organizing key events such as Pi Day, AUMS Weekly Puzzle, Maths Olympiads, and Pub Crawls, fostering both academic and social engagement.
- Developed and launched the society's website, improving outreach and streamlining event coordination, while managing collaborations with staff, sponsors, and other student organizations.

## HONORS AND AWARDS

**Third Prize** | Vietnamese Mathematical Olympiad

Mar. 2023

**Meritorious Prize** | International Mathematical Modeling Challenge

May 2022

## TECHNICAL SKILLS

**Languages:** Python, C++, JavaScript, HTML/CSS, LATEX, Assembly, Dart, R, MATLAB

**Frameworks:** PyTorch, Django, Flask, Streamlit, Gradio, FastAPI, Scikit-learn

**Developer Tools:** Git, Docker, Google Colab, Google Cloud Platform, Jupyter Notebook, Linux, AWS