

EDUCATION

Nanyang Technological University, Singapore Bachelor of Science (Data Science and AI)

Aug 2022 - May 2026

- ASEAN Scholars with Expected Honours (Distinction), Current cGPA: 4.7/5.0.

SKILLS

- Programming Language: Python, Javascript (React.js, Next.js, Vue.js, Node.js), SQL, C/C++, Java, C#, Go
- Frameworks & Tools: PyTorch, TensorFlow, Langchain, Docker, ROS (Robot Operating System)
- Deep Learning Experience (with Research Experience): Computer Vision, Diffusion Models, Reinforcement Learning, Robotics, NLP & LLMs, Multimodality
- Google Professional Machine Learning Engineer Certification ([Certificate Link](#))
- Completed 1-month intensive **AI Safety Research Engineer Accelerator Training** focused on developing safe and aligned LLMs and AI agents.

PUBLICATIONS & ACHIEVEMENTS

NTU S-Lab, Singapore

Aug 2023 – Current

URECA – Diving into Multimodal Large-Scale Models: Innovations, Integrations, and Utilization

- Co-authored [Offer](#), a vision-language model inspired by Flamingo, including finetuning and evaluation pipeline, accepted in **IEEE TPAMI**.
- Co-authored [LMMS-Eval](#), a distributed LLM benchmarking framework for streamlined evaluation; accepted at **NAACL 2025**.
- Built experience in distributed evaluation pipelines and scalable benchmarking infrastructure.

BARN Challenge @ ICRA 2024, Japan

Jan 2024 – May 2024

MLDA Robotics Team 2nd Place Winner

- Developed an advanced MPC algorithm with mode switching for local path planning, specifically designed to navigate tight space constraints.
- Co-authored a detailed report on the challenge outcomes: [BARN 2024 Report](#), published in IEEE Robotics & Automation Magazine.

18th International Zhautykov Olympiad (Izho) in Informatics

Feb 2022 – Feb 2022

Silver Medalist

- Ranked in the top 40 among over 300 participants from more than 20 countries worldwide, successfully solving six challenging algorithmic questions.

2020 National Science Competition in Informatics (OSN)

March 2020 – Sep 2020

Silver Medalist

- Placed 10th among 10000 Indonesian competitors nationwide in Codeforces-style competition.
- Achieved a **Top 15** national ranking in the IOI preparation camp.

WORK EXPERIENCE

Temasek Lab, Singapore

Jan 2025 – May 2025

Machine Learning Research Intern, Internship

- Researched model interpretability and saliency techniques for image segmentation used for IC hardware security.
- Built custom multi-scale PyTorch models using **U-Net**, **Vision Transformers (ViT)**, and **Swin Transformers**.

- Built the **first-ever interpretability framework** for this domain, integrating attention rollout, saliency maps, and visual attribution methods.

NTU-Continental Lab, Singapore

May 2024 – Dec 2024

Machine Learning & Robotics Research Intern, Internship

- Developed state-of-the-art diffusion planners for robotics motion planning in MuJoCo environments and ROS, enhancing autonomous navigation and control systems using PyTorch.
- Implemented and compared 3 different algorithms (behaviour cloning with CNN, with Transformer and Diffusion Planners).
- Deployed algorithm to Jackal robot using ROS.

A*STAR Institute for Infocomm Research (I2R), Singapore

Jul 2023 – Mar 2024

Machine Learning Research Assistant, Internship

- Collaborated with research scientists to develop an AI-driven solution for optimizing diabetes treatment using Reinforcement Learning.
- Designed and implemented for a customized Offline Reinforcement Learning Environment Framework, based on OpenAI's Gymnasium framework and tailored specifically for medical datasets.
- Transformed the MIMIC-III dataset from Google BigQuery to PostgreSQL and DataFrame formats and built a robust evaluation pipeline to enable efficient testing of algorithms such as DQN, DRQN, DRQN-EWC, and MoE.
- Published a software IP and preparing a publication based on the findings.

NTU Student's Computing and Data Science Club, Singapore

Sep 2024 – Present


IT Executive Chairperson

- Led a 20-person team across Software, ML, and UI/UX for [PYPHub](#), a CS exam forum platform.
- Built scraping, OCR processing, and AI-generated solutions using RAG.
- Launched and used by 2000+ users, over half the NTU CS cohort, in under a month.
- Tech Stack: Langchain, Next.js, Express.js

NTU Student Union, Singapore

Aug 2022 – Aug 2024

Backend Team Lead, Vice Chair

- Managed a team of 3 other backend developers in the successful development and launch of three major NTUSU projects: NTUSU Ufacility, Event, and NTUMods, serving over 1,000 NTU students.
- Key projects: [NTUMods](#)  - A hassle-free module management tool, and [NTUSU-ITC Portal](#).
- Tech Stack: Python, Django, SQL, React

Heart of God Church, Singapore

Sep 2023 – Present

Part-time Fullstack Developer

- Implemented an agentic text-to-SQL for database extraction query using natural language.
- Led a team of 4 developers and contributed to building and deploying cross-platform mobile applications (Android and iOS) to enhance accessibility for conference participants.
- Key project: [GenerationS Pastors Conference](#)
- Tech Stack: Next.js, Nest.js, SQL, Android Development (Ionic) Retool & Strapi CMS

OTHER ACHEIVEMENTS

2023 ICPC Regional Jakarta NTU Team, 2018 National Mathematics Olympiad Silver Medalist

OTHER INTERESTS

[Kaggle](#), [Codeforces](#), [Pentesting](#), [Quantum Computing](#), [Chess](#), [Go](#)