Khang Tran

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Education

Princeton University *Sept 2024 – May 2028*
Physics A.B. with Minors in Engineering Physics, and Robotics *Princeton, NJ*

- **Grade:** 3.9/4.0
- **Relevant Coursework:** Classical to Quantum Mechanics (PHY 207), Algorithms & Data Structures (COS 226)
- **Extracurricular:** Princeton Students in Quantum, Rocketry (Liquid Rocketry), Robotics (Robocup Team)
- **Awards:** IBM Qiskit Hackathon Champion (Hardware Category); Princeton COSCON 5th (Undegrad), 7th (Overall)
- **Events:** SpaceVision 2024, MIT IQuHACK 2025, YQuantum 2025

National University of Singapore *Aug 2022 – May 2023*
Dual Enrollment in Computer Science and Computer Engineering *Singapore*

- **Grade:** A
- **Relevant Coursework:** Computer Organization, Introduction to Operating Systems

Technical Skills

Software: KiCAD, Fusion 360, Onshape, Blender, Adobe Premiere Pro

Languages: HTML, (S)CSS, JavaScript, TypeScript, Python, C/C++, Java, Kotlin, SQL, MATLAB/Octave, Mathematica, LaTeX, Vietnamese, English

Frameworks/Libraries: Svelte, Flask, JavaFX, Node.JS, Tensorflow, NLTK, spaCy, Scipy, Sympy, etc...

Engineering: Machine Learning (Natural Language Processing and Image Recognition), Operating System Design, Concurrent Programming, Low-level/Bare-metal Programming, Circuit Analysis, Signal Processing, Microcontrollers

Experience

Summer Research Intern *Princeton, NJ*
High Meadows Environmental Institute *Jun 8 - Aug 3*

- Studying the effects of varying forcing strengths on the Artic Amplification phenomenon under the guidance of Ivan Mitevski in Gabriel Vecchi's lab.

Physics Olympiad Problem Setter *Singapore*
Singapore Physics League Organizing Team (2024 & 2025) *Sep 2023 – present*

- Contribute in the setting and reviewing of problems in Singapore Physics League 2024 & 2025, a national Physics Olympiad in Singapore.

Space Systems Engineer Intern *Singapore*
Aliena *Oct 2023 – Mar 2024*

- Designed and built hardware and software for testing the Electronic Control Unit on Aliena's current Hall thruster.
- Developed end-to-end software pipeline for remote automation of lab equipment for ignition test of Aliena's 5A cathodes.

Projects

Shielding-Free Signal Noise Suppression in Portable Low-Field MRI *Apr 2022 - Aug 2023*
Singapore University of Technology and Design (SUTD)

- Developed a shielding-free signal noise suppression system for SUTD's portable magnetic resonance imager under the mentorship of Professor Huang Shaoying and her team.
- **Poster presentation at International Conference for Magnetic Resonance Microscopy 2023**

Infinite Regress: Citation Graphing, Clustering and Multi-Document Summarization of Academic Articles report

- Built front-end and back-end for scraping papers, generating citation graphs, clustering, and multi-document summarization using transformers and techniques in natural language processing.
- Tools Used: Python, Vue

Ok, Bloomer! ok-bloomer

- A service built using Svelte (TypeScript & SCSS) and MySQL connecting plant buyer and seller
- Tools Used: Svelte, SvelteKit, MySQL