

Curriculum Vitae

Le Nguyen Tan Khang

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Personal Information

Name: Le Nguyen Tan Khang
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Education

- **Major in Information Systems**, University of Information Technology, Ho Chi Minh City, Viet Nam, 2022 - Current GPA: 8.52/10
- **Gifted Education with a Focus on Computer Science**, Luong Van Chanh High School for the Gifted, Tuy Hoa City, Phu Yen Province, Viet Nam, 2019 - 2022 GPA: 8.7/10

Working Experience

- **Research Assistant**, IS Lab, Department of Information Systems, University of Information Technology, Ho Chi Minh City, Viet Nam, 2022 - Current
- **Online seller**, 2019 - 2022. Self-employed on Facebook, and shopping platforms. Was a high school student at the time working to support my family and my passion.
- **Cafe Staff**, Summer 2018. Worked as a waiter at a local cafe in hometown to support my family.

Megaprojects

- Exploring Spike Neural Networks for Privacy-Preserving Violence Detection Using DVS Cameras, 2024 – Current. Spearheading a project that leverages Spike Neural Networks and Dynamic Vision Sensor technology to detect violent actions in real-time while ensuring individual privacy. The initiative focuses on developing efficient, low-power visual processing solutions suitable for edge devices such as security cameras and drones.
- Developing a Cross-Platform Sketch + Prompt-to-Image Application, 2024 – 2024. Leading the creation of an innovative application that converts hand-drawn sketches into photorealistic images using advanced machine learning models. Responsibilities include designing a user-friendly sketch input interface, integrating prompt-based image generation algorithms, and optimizing the system for peak performance and accuracy.
- Utilizing Generative Adversarial Networks for augmenting face dataset, 2023 - 2024. Implemented a generative adversarial network (GAN) to augment a face dataset. The GAN was able to generate realistic and diverse images of faces, which could be used to increase the size and diversity of the dataset. The GAN was trained on a dataset of real face images and was able to generate new images that were similar to the original images in terms of facial features and expressions. The generated images were used to augment the original dataset, which resulted in a larger and more diverse dataset that could be used for training machine learning models.
- Researching into large-scale face recognition systems, 2022 - 2023. Implemented a face recognition system using a combination of face detection, face alignment, and face recognition algorithms. The system was able to accurately identify faces in images and videos, and was able to recognize faces across different lighting conditions and angles. Using embedding techniques to reduce the dimensionality of the data and improve the accuracy of the recognition, thereby supporting multiple users in real-time.

Skills

- Programming Languages: Python, C#, C++, Javascript/HTML/CSS, R, Bash scripting
- Frameworks: Tensorflow, Pytorch, Micrograd, .NET MAUI, Manim, React
- IDEs and Productivity Tools: LaTeX, VIM, Obsidian, VScode, Jupyter, Colab, Kaggle, Git/Github, Docker, Markdown, Zotero

Awards

- UIT Advance Scholarship, 20 million VND, 2024
- UIT English Debate Contest, 3 million VND, 2024
- UIT Academic Encouragement, 13 million VND, 2023
- UIT Academic Encouragement, 13 million VND, 2022
- High school scholarship covering all tuition costs. 2019 - 2022

Languages

- English: Fluent - IELTS Academic 7.0 (since August 2023)
- Vietnamese: Fluent - Mother Tongue
- Spanish: Beginner

Extracurricular Activities

- Volunteering, 2022 - Current. Volunteered in organizing many events in Dormitory A. Most of those events are related to sports and concerts.
- Skateboarding, 2019 - Current. Got many prizes in the city contests. Learned online how to skateboard then taught other kids in hometown.
- Soccer, 2017 - 2019. Was a Captain of the school team, ranked 1st in the city league.

Interests

- Designing and developing things from scratch (DIY)
- Crafting math animation
- Utilizing and contributing open source software
- Making AR-related things
- Skateboarding