

Thanh-Tin Nguyen - AI Researcher

Contact Information

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Education

Auburn University, Alabama, USA. August. 2022 - Present

- **Graduate Teaching Assistant** in Computer Science and Software Engineering.
- **Research** in Robust & Explainable AI.
- **Advisor**: Prof. Anh Nguyen.

Sejong University, Seoul, Korea. Sep. 2020 - August. 2022

- **M.Sc.** in Computer Science and Engineering.
- **Thesis**: *Fusion Networks for Language Grounding in Navigation Task*.
- **Advisor**: Prof. Kim Yong Guk.

Ho Chi Minh University of Science, Ho Chi Minh, Vietnam. Sep. 2015 - August. 2019

- **B.A.** in Computer Vision and Robotics.
 - **Thesis**: *A New Framework of Moving Object Tracking based on Object Detection - Tracking with Removal of Moving Features using Stereo Camera and IMU*.
 - **Advisor**: Prof. Ly Quoc Ngoc.
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Technical Skills

- **AI**: Computer Vision, NLP, Deep Learning, Reinforcement Learning.
 - C/C++, Python, PyTorch, Tensorflow
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Work Experience

- **AI Engineer** May. 2019 - May. 2020

AIOZ Company, Ho Chi Minh City, Vietnam.

Implementations for various projects such as:

- Instance Segmentation to detect staff in a store.
- Face Recognition to re-identify customers of a store.
- License Plate Recognition for a car parking.

- **AI Engineer Intern** Mar. 2018 - Mar. 2019

Gumi Company, Vietnam.

- Line Segmentation for handwritten text.
- Optical Character Recognition (OCR) for Japanese bills and documents.

- **Game Programmer Intern** Jun. 2017 - Oct. 2018

Gameloft Company, Vietnam.

I was a game developer intern here. Doing an arcade game using Cocos-2dx.

Conference (Selected)

1. **[Under Review] Minh Thang Pham, Peijie Chen, Thanh-Tin Nguyen, Seunghyun Yoon, Trung Bui, Anh Nguyen. “Part-based bird classifiers with an explainable, editable language bottleneck”.** *North American Chapter of the Association for Computational Linguistics (NAACL)*, 2024. [\[Paper\]](#)[\[Video\]](#)
 2. **[Under Review] Thanh Tin Nguyen, Anh Nguyen. “How does “habitat” help fine-grained bird identification”.** *Computer Vision and Pattern Recognition Conference (CVPR)*, 2024. [\[Paper\]](#)[\[Video\]](#)
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Journals (Selected)

1. **Thanh-Tin Nguyen, Anh H. Vo, Soo-Mi Choi, Kim Yong Guk. “Coarse-To-Fine Fusion for Language Grounding in 3D Navigation”.** *Knowledge-based Systems (KBS)*, 2023. [\[Paper\]](#)[\[Video\]](#)
2. **Long H. Nguyen, Nhat Truong Pham, Van Huong Do, Liu Tai Nguyen, Thanh-Tin Nguyen, Van Dung Do, Hai Nguyen, Ngoc Duy Nguyen. “Fruit-CoV: An Efficient Vision-based Framework for Speedy Detection and Diagnosis of SARS-CoV-2 Infections Through Recorded Cough Sounds”.** *Expert Systems with Applications (ESWA)*, 2021. [\[Paper\]](#)

3. **Thanh-Tin Nguyen**, Ly Quoc Ngoc, , Le Bao Tuan, “**A New Framework of Moving Object Tracking based on Object Detection-Tracking with Removal of Moving Features using Stereo Camera and IMU**”. *International Journal of Advanced Computer Science and Applications (IJACSA)*, 2020. [[Paper](#)][[Video 1](#)][[Video 2](#)][[Video 3](#)]
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Challenges / Workshops (Selected)

1. **Thanh-Tin Nguyen**. “**1st place in Predicting Deforestation Region in Indonesia Challenge**”. *Climate Change AI Challenge*, 2023. [[Challenge](#)][[Link project](#)][[Code](#)]
 2. **Thanh-Tin Nguyen**, Nhat Truong Pham, Yong-Guk Kim, *et. al.*, “**HCILab at Memotion 2.0 2022: Analysis of Sentiment, Emotion and Intensity of Emotion Classes from Meme Images using Single and Multi Modalities**”. *First Workshop on Multimodal Fact-Checking and Hate Speech Detection AAAI Workshop*, 2022. [[Paper](#)][[Link project](#)][[Code](#)]
 3. **Thanh-Tin Nguyen**, Nhat Truong Pham, Ngoc Duy Nguyen, *et. al.*, “**VieCap4H Challenge: Automatic image caption generation for healthcare domains in Vietnamese**”. **3rd** at *Proceedings of the 8th International Workshop on Vietnamese Language and Speech Processing*, 2021. [[Paper](#)][[Link project](#)][[Code](#)]
 4. Long H. Nguyen, Nhat Truong Pham, Van Huong Do, Liu Tai Nguyen, **Thanh Tin Nguyen**, Hai Nguyen, Ngoc Duy Nguyen. “**Fruit-CoV: An Efficient Vision-based Framework for Speedy Detection and Diagnosis of SARS-CoV-2 Infections Through Recorded Cough Sounds**”. **1st** at *AI CovidVN 115M Challenge: Covid Cough Detection Challenge*, 2021. [[Paper](#)]
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Honors / Awards

- **1st Prize in AICovidVN challenge** July. 2021 - Sep. 2021
Introduced Fruit-CoV, a framework that is capable of detecting SARS-CoV-2 through cough sounds. Received 100mil VND (\$4300)
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Services and Activities

- **Teacher at K-6 AI Club** Aug. 2022 - Present
AI Club for children around the elementary-school age (K-6) to learn math, coding, robotics, and artificial intelligence. This is a completely FREE, voluntary, educational event. Supported by Auburn University and an NSF CAREER award. Find out more at: [our website](#).
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