

Thanh Tin Nguyen - AI Researcher

Contact Information

Seoul, Gwangjin-gu, Neungdong-ro, 209, Korea

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Research Interest

- **Language Grounding for Robotics:** Let the robot navigate towards a goal by complicated instructions.
 - **Multimodal Analysis:** Analysing sentiment, emotions categories, etc, by multimodal data (vision-text-audio)
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Education

Sejong University, Seoul, Korea.

Sep. 2020 - August. 2022

- **M.Sc.** in Computer Science and Engineering.
- **Thesis:** *Instruction Following: Reinforcement Learning Approach.*
- **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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Languages

- **Vietnamese:** Native
- **English:** 7.0 band of IELTS.

Jan. 2022

Technical Skills

- **Programming Languages:** C/C++, Python.
 - **Tools:** Tensorflow, Pytorch, Git, ROS, Ubuntu, Windows.
 - **AI Skills:** Computer Vision, Deep Learning, Reinforcement Learning.
 - **Math:** Probabilistic Robotics (Kalman Filter, Particle Filter, Localization, SLAM), Graph Theory (DFS, BFS, A*, D*), Linear Algebra, Optimization.
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Work Experience

- **AI Engineer** Mar. 2020 - Sep. 2020
Ohmnilabs Company, Ho Chi Minh city, Vietnam.
Implementations of Object Tracking for Ohmni Robots.
 - using TPU Google Coral to deploy AI model on Ohmni Robots.
 - Multiple Objects Tracking.
 - **AI Engineer** May. 2019 - Mar. 2020
AIOZ Company, Ho Chi Minh city, Vietnam.
Implementations for various projects such as:
 - Instance Segmentation.
 - Face Recognition.
 - License Plate Recognition.
 - **AI Engineer Intern** Mar. 2018 - Mar. 2019
Gumi Company, Vietnam.
Learning Object Detection and Optical Character Recognition (OCR).
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Journals (Selected)

1. **Nguyen Thanh Tin**, Ngoc Duy Nguyen, Chee Peng Lim, Asim Bhatti, Kim Yong Guk. “**Fourier Transform for Language Grounding Network with Multiple Goals**”. *Expert Systems with Applications (ESWA)*, 2022. [[Under Review](#)][[Video](#)]
 2. **Nguyen Thanh Tin**, Kim Yong Guk. “**Coarse-To-Fine Fusion for Language Grounding in 3D Navigation**”. *Knowledge-based Systems (KBS)*, 2022. [[Under Review](#)][[Video](#)]
 3. 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. [[Under Review](#)][[Arxiv](#)]
 4. **Nguyen Thanh Tin**, Ly Quoc Ngoc, , Le Bao Tuan, *et. al.*. “**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. [[Link paper](#)][[Video 1](#)][[Video 2](#)][[Video 3](#)]
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Challenges / Workshops (Selected)

1. **Thanh Tin Nguyen**. “**Artificial Intelligence for Covid-19 prognosis**”. **9/20** at Covid CXR Hackathon, 2022. [[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. [[Link 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. [[Link paper](#)][[Link project](#)][[Code](#)]