

TOAN GIAN

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Education

Northeastern University

PhD, Electrical Engineering

Boston, MS, US

Jan 2025 – Now

Hanoi University of Science and Technology (HUST)

BS, Electrical Engineering

Hanoi, Vietnam

Sep 2018 – Sep 2023

Research Experience

MENTIS Laboratory, Northeastern University

Ph.D. Student

Jan 2025 – Now

Boston, MA, USA

AI/ML in Next-generation Multi-agent Control Systems: Develop a scalable and low-latency framework for multi-agent systems that minimizes resource usage (*e.g.*, computing, energy, and memory), enabling reliable operation in constrained environments.

ICC Laboratory, VinUniversity

Research Assistant

July 2023 – Dec 2024

Hanoi, Vietnam

WiFi-enabled Human Pose Estimation: Develop an efficient DNN model using WiFi signals for human pose estimation, achieving state-of-the-art accuracy with minimal computational cost.

AIoT laboratory, Phenikaa University

Research Assistant

Feb 2022 – Jun 2023

Hanoi, Vietnam

DL-based Signal Detector for Communication Systems: Develop a DNN-based signal detector for NOMA systems, achieving near-optimal performance compared to the existing methods with low complexity.

Industry Experience

Bosch Global Software Technologies Co., Ltd (BGSV)

AI Intern - Global Talent Internship Program

Aug 2022 – Feb 2023

Hanoi, Vietnam

Object detection and object tracking in front of the vehicle using front view camera: Develop a DL model for real-time object detection and tracking using a vehicle's front-view camera.

Selected Publications

- **Toan Gian**, Tran Trung Dung, Francesco Restuccia, Viet Quoc Pham, Van-Dinh Nguyen. **TinySense: Effective CSI Compression for Scalable and Accurate Wi-Fi Sensing.** *IEEE International Conference on Pervasive Computing and Communications (PerCom)* 2026. **(A*, Accepted Rate: 15%)** [Pdf] [Code]
- **Toan Gian**, Mohammad Abdi, Francesco Restuccia. **SDE-HARL: Scalable Distributed Policy Execution for Heterogeneous-Agent Reinforcement Learning.** *Association for the Advancement of Artificial Intelligence (AAAI)* 2026. **(A*, Accepted Rate: 17%)** [Pdf] [Code]
- **Toan Gian**, Tien Lai, Thien Van Luong, Kok-Seng Wong, and Van-Dinh Nguyen. **HPE-Li: WiFi-enabled Lightweight Dual Selective Kernel Convolution for Human Pose Estimation.** *European Conference on Computer Vision (ECCV)* 2024. **(A*, Accepted Rate: 21%)** [Pdf] [Code]

Honors and Awards

Fully Funded Ph.D. Scholarship.

Northeastern University

2025-2029

Boston, MA, USA

ECCV Travel Grant Award 2024.

European Conference on Computer Vision 2024

Sep 2024

Milan, Italia

Best School of Electrical and Electronic Engineering Thesis Award.

Hanoi University of Science and Technology; Grade: 100/100

Aug 2023

Hanoi, Vietnam

Global Scholarship Talent Internship Program.

Bosch Global Software Technologies

Aug 2022

Hanoi, Vietnam

SKILLS

Languages: Vietnamese (native), English (Toeic: 765/990, IELTS: 6.5, Duolingo English Test (DET): 105)

Framworks: Pytorch, Tensorflow/Keras.

Operator systems: Linux, Window.

REFEREES

Asst. Prof. Francesco Restuccia

Boston, MA, US

Northeastern University

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- 📧 Francesco Restuccia

Asst. Prof. Van Dinh Nguyen

Dublin, Ireland

Trinity College Dublin, Ireland

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