Quang Nhat Nguyen

Department of Electrical Engineering

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Languages: Vietnamese (native), English (proficient – IELTS 8.0),
Japanese (JLPT N2)

Affiliated Research Group

April 2020 – Present
Takeda Laboratory

Driving Behaviour and Perception Research Group

Department of Intelligent Systems, Graduate School of Informatics, Nagoya University

Current Research Topic

Material classification from multispectral and multimodal perception data: A novel approach for semantic segmentation and photorealistic LiDAR sensor simulation

Research interests: Perceptive intelligence of autonomous robots and vehicles, Intelligent systems, Data science, Computer vision, Artificial Intelligence, Digital twin, 3D mapping and reconstruction, Sensors fusion.

Professional Experience

June 2023 – Present
Research and Development Engineer at MapIV, inc. (a group member of TierIV, inc.)

November 2021 – March 2022, April 2023 – Present
Research Assistant at JARI (Japan Automobile Research Institute)

September 2022
Research Intern at RIKEN Centre for Computational Science (R-CCS)

In participation to the High-Performance Computing (HPC) Computational Science Research Internship

April 2022 – March 2023
Research Assistant at NEDO (New Energy and Industrial Technology Development Organisation)

Education

October 2021 – September 2023 (expected)
M.E. in Electrical Engineering

Nagoya University, Japan

October 2017 – September 2021
B.E. in Electrical Engineering, Electronics, and Information Engineering

Nagoya University, Japan, GPA: 4.07, Valedictorian

August 2014 – May 2017
High School Diploma with specialisation in Mathematics

Le Quy Don High School for Gifted Students, Da Nang City, Vietnam

Publications

Universal Calibration Target for Joint Calibration of LiDAR sensors, Thermal Cameras, and RGB cameras

Quang Nhat Nguyen, Khanh Bao Tran, Alexander Carballo, and Kazuya Takeda
IEEE International Conference on Intelligent Transportation Systems (ITSC) (submitted), September 2023

Physics-based LiDAR waveform simulation method for realism improvement of driving simulators

Quang Nhat Nguyen, Alexander Carballo, and Kazuya Takeda
International Symposium on Future Active Safety Technology toward zero-traffic-accident (FAST-zero), September 2021

On radial Schrödinger operators with a Coulomb potential: general boundary conditions

Jan Dereziński, Jérémy Faupin, Quang Nhat Nguyen, and Serge Richard
Advances in Operator Theory 5, pp. 1132 − 1192, July 2020
DOI: [10.1007/s43036-020-00082-6](10.1007/s43036-020-00082-6)

Grants / Scholarships

October 2021 – Present
Japan Government's Scholar

Recipient of MEXT Scholarship as a graduate student, awarded by the Ministry of Education, Culture, Sports, Science and Technology of Japan

October 2017 – September 2021
Japan Government's Scholar

Recipient of MEXT Scholarship as an undergraduate student, awarded by the Ministry of Education, Culture, Sports, Science and Technology of Japan

Honours / Awards

Vingroup Science and Technology Scholarship Nomination
August 2022, nominated by Vingroup.

Outstanding Presentation Award
July 2022, awarded by Nagoya University.

Valedictorian of Nagoya University School of Engineering
September 2021, honoured by Nagoya University.

First Prize, Municipal Mathematics Olympiad
2017, awarded by the Department of Education of the Municipal Government of Da Nang City, Vietnam.

Third prize, Municipal Robotics Competition *ROBODNIC*
2017, awarded by the Association of the Science and Engineering Organisations in Da Nang City, Vietnam.

Second Prize, National Computer Science Competition
2012, awarded by the Ministry of Education of Vietnam.

Skills

Programming
Machine Learning and **Deep Learning** implementation in Python
Cloud-based (AWS, Google Cloud) and **containerised application** (Docker) development
Graphics engine (Unreal Engine) programming

Autonomous driving systems development, and others
Autonomous driving simulators (CARLA, SVL, Autoware)
Robotics perception programming (ROS, sensors calibration, 3D mapping, digital twin)
Electronics circuit design and implementation
3D CAD

Licenses / Certificates

Quantum Computing
IBM Quantum Challenge Certificate of Achievement
Issued by **IBM**, credential ID: https://www.credly.com/badges/918c0976-1f83-4f02-9b88-a5f5afd02e87/public_url

Machine Learning
Machine Learning Specialisation
Issued by **Stanford University**, credential ID: https://coursera.org/verify/specialization/JV2NK7M6HMSN

Cloud-based Development
Amazon Web Services Specialisation: Modern Application Development with Python on AWS
Issued by **Amazon Web Services**, credential ID: https://coursera.org/verify/specialization/YWFXB8CS6DTJ

Teaching Experience

10/2018 – 2/2021
Tutor for the following courses at Nagoya University:

Mathematics for Machine Learning (Autumn 2020)
Graph Theory (Spring 2020)
Calculus I (Autumn 2019)
Differential Geometry (Autumn 2018)