

Quang Nhat Nguyen Le

Delft, Netherlands

✉ quangnhatnguyenle@gmail.com | 🏠 quangnhat185.github.io



Experience

SAM XL - Delft University of Technology

ROBOTICS SOFTWARE ENGINEER

Delft, Netherlands

Sep. 2024 - Present

- Develop automated intelligent systems for Smart Manufacturing
- Implement advance motion planning and perception for industrial robot manipulator
- Develop motion planning and navigation stack for autonomous mobile robot platforms
- Skills: Motion Planning, Industrial Manipulator (ABB/KUKA), Mobile Manipulator, CI/CD, ROS2, SLAM, Nav2

Robert Bosch Campus for Research and Advanced Engineering

AUTOMATED DRIVING DEVELOPER

Renningen, Germany

Oct. 2022 - Jul. 2024

- Developed an end-to-end High Definition Map Construction Approach for Autonomous Driving Vehicles with Deep Learning approaches
- Developed end-to-end Visual Object Detection and Tracing pipeline with Deep Learning
- Integrated SOTA computer vision algorithms including Point Cloud Object Detection, Image Segmentation, BEV Feature Extraction, etc.
- Skills: Transformer-based Neural Networks, ROS/ROS2, Computer Vision, Deep Learning, LiDAR, real-time HD Map Construction, C++/Python, Sensor Data Processing, Gazebo, Tracking

Robotics Lab, Rhine-Waal University of Applied Science

RESEARCH ASSISTANT

Kleve, Germany

Sep. 2019 - Apr. 2021

- Led a cross-functional team to develop autonomous small-scaled self-driving vehicles using low-power embedded systems.
- Deployed SLAM algorithms, localization, and state estimation for mobile robotics platforms
- Developed real-time solutions for Artificial Intelligence applications on edge devices
- Tutor the course "Introduction to Machine Learning"
- Tutor the course "Advanced Computer Aided-Design"
- Skills: ROS/ROS2, SLAM, Localization, EKF, Particle Filter, Object Detection, PyTorch, TensorFlow, TensorRT, OpenCV, Nvidia Jetson

Robert Bosch Engineering and Business Solutions Limited

TECHNICAL ANALYST FOR FOREIGN TRADE

Ho Chi Minh City, Vietnam

Oct. 2017 - Mar. 2018

- Build up Master data for Foreign Trade share service included Harmonize system code, preferential determination, and export control for all products of Bosch worldwide
- Analyze Bill of Material of Bosch products for preferential calculation

Samsung Electronic Ho Chi Minh CE Complex

DIGITAL APPLIANCES ENGINEER- SENIOR STAFF

Ho Chi Minh City, Vietnam

June. 2016 - Sep. 2017

- Design and develop new models of Samsung refrigerator for mass production
- Initiate and provides technical direction to enhance production methods, improve quality and reduce production costs
- Develop methods, programs and plans to predict, track, and report production costs during design development

Education

RWTH Aachen University

M.SC IN ROBOTICS SYSTEM ENGINEERING

Aachen, Germany

Oct. 2021 - Sept. 2023

- Thesis: Towards Mapless Autonomous Driving - Grade: 1.0
- Dean's List Awardee (Top 5% Student)

Rhine-Waal University of Applied Sciences

M.SC IN BIONICS

Kleve, Germany

Mar. 2018 - Mar. 2021

- GPA: 1.7/1
- Thesis: Design and Development of Intelligent Autonomous Omni-directional Robot
- Association of German Engineers' award for excellent project

Ho Chi Minh City University of Technology and Education

B.SC IN MECHANICAL ENGINEERING

Ho Chi Minh City, Vietnam

Sep. 2012 - Aug. 2016

- GPA: 8.1/10. Graduated with Distinction.

Skills

Programming	Python, C++/C, MATLAB, Java, HTML/CSS/Js
Systems	Linux, Git, Docker
Robotics	ROS2/ROS, Embedded Systems, Localization, SLAM
AI Frameworks	MMDetection, Pytorch, Tensorflow, Scikit-learn, TensorRT, TFLite
CAD	Siemens NX, Solidworks, Inventor, AutoCad
Languages	English (Fluent), German (Basic), Vietnamese (Native Language)
Office tools	Latex, Excel, Word, PowerPoint
Hobbies	Basketball, Guitar, Running

Honors & Awards

2023	Dean's List award excellent academic performance,	Aachen, Germany
2021	Association of German Engineers' award for excellent Master's Thesis,	Dusseldorf, Germany
2021	Vingroup Science and Technology Scholarship Program for Overseas Study for Master's and Doctoral Degrees,	Hanoi, Vietnam
2021	3rd place at JRC AUTOTRAC 2020: a small-scale automated vehicles competition hosted by EU Science Hub,	Ispra, Italy
2016	Odon Vallet scholarship for excellent students in Vietnam,	Ho Chi Minh City, Vietnam
2015	Excellent oral presentation at ICMAS 2015 conference, April 13th-14th, Paris, France,	Paris, France
2014	Sunflower Mission Engineering and Technology Scholarship 2014,	Ho Chi Minh City, Vietnam

Publication

2015	Quang Nhat Nguyen Le , and Nguyen Truong Thinh: "Development of the bending actuator with Nafion-Pt IPMC tube". Advanced Materials Research. Vol. 1119. Trans Tech Publications, 2015.	Paris, France
2020	Quang Nhat Nguyen Le , Abir Bhattacharyya, Mamen Chembakasseril and Ronny Hartanto: "Real-time Sign Detection and Recognition for Self-driving Mini Rovers based on Template Matching and Hierarchical Decision Structure". Proceedings of the 12th International Conference on Agents and Artificial Intelligence. Vol. 1. SciTePress, 2020.	Valletta, Malta
2023	22 authors including Quang Nhat Nguyen Le , Robotic Competitions to Design Future Transport Systems: The Case of JRC AUTOTRAC 2020. Transportation Research Record, 2677(2), 1165-1178	Ispra, Italy
2024	Michalke, Thomas Paul, Waeldele, Steffen, Nguyen, Le Quang Nhat , Occlusion Handling and SD Map Fusion for Online Map Generation. International Conference on Intelligent Transportation Systems (ITSC) 2024	Edmonton, Canada