

Quang Nhat Nguyen Le

71272 Renningen, Germany

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



Experience

Robert Bosch Campus for Research and Advanced Engineering

Renningen, Germany

INTERNSHIP AND MASTER'S THESIS

Oct. 2022 - Sep. 2023

- Develop an end-to-end High Definition Map Construction Approach for Autonomous Driving Vehicles with Deep Learning approaches
- Develop a real-time High Definition Map Construction pipeline based on ROS framework
- Leverage Transformer-based Neural Networks to construct High Definition Maps using camera and LiDAR data
- Related topics: Transformer-based Neural Networks, ROS, Computer Vision, Deep Learning, LiDAR, real-time HD Map Construction, C++/Python, Sensor Data Processing

Robotics Lab, Rhine-Waal University of Applied Science

Kleve, Germany

RESEARCH ASSISTANT

Sep. 2019 - Apr. 2021

- Develop Autonomous Small-scaled Self-driving Vehicles with low-power embedded systems.
- Deploy SLAM algorithms on Mobile Robotics Platforms
- Develop real-time solutions for Artificial Intelligence applications on edge devices
- Tutor the course "Introduction to Machine Learning"
- Tutor the course "Advanced Computer Aided-Design"
- Related topics: ROS/ROS2, SLAM, Computer Vision, Deep Learning, PyTorch, TensorFlow, TensorRT, OpenCV, Nvidia Jetson, Raspberry Pi, DC Motor Controller Mobile Robotics

Robert Bosch Engineering and Business Solutions Limited

Ho Chi Minh City, Vietnam

TECHNICAL ANALYST FOR FOREIGN TRADE

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

Ho Chi Minh City, Vietnam

DIGITAL APPLIANCES ENGINEER- SENIOR STAFF

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

Aachen, Germany

M.Sc IN ROBOTICS SYSTEM ENGINEERING

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

Kleve, Germany

M.Sc IN BIONICS

Mar. 2018 - Mar. 2021

- GPA: 1.7/1
- Master's Thesis: Design and Development of IAOR - an Intelligent Autonomous Omni-directional Robot

Ho Chi Minh City University of Technology

Ho Chi Minh City, Vietnam

B.Sc IN MECHANICAL ENGINEERING

Sep. 2012 - Aug. 2016

- GPA: 8.1/10

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

Projects

Rhine-Waal University of Applied Sciences

Kleve, Germany

TEAM CAPTAIN

Mar. 2019 - May. 2021

- Design and Development of IAOCR - an Intelligent Autonomous Omni-directional Climbing Robot.
- Small-scaled Self-driving Vehicles competition: Our goal is to develop small-scale automated vehicles which would compete in JRC AUTOTRAC 2020 - an autonomous vehicle traffic competition hosted by European Science Hub.

Ho Chi Minh City University of Technology and Education

Ho Chi Minh City, Vietnam

TEAM CAPTAIN

Apr. 2015 - Jul. 2016

- Capstone Project: Design, Developing and Manufacturing 5 Axis CNC Milling Machine.
- Research Project: Development of an Ion-exchange Polymer Metal Composites bending actuator for robotic and medical-related applications.

Honors & Awards

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

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.	<i>Paris, France</i>
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.	<i>Valletta, Malta</i>