Quang Nhat **Nguyen Le**

Delft, Netherlands

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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 - Mar. 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, localiztion, 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   *Kleve , Germany*

M.Sc in Bionics   *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   *Ho Chi Minh City , Vietnam*

B.Sc in Mechanical Engineering   *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*