An Thai **Le**

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Education

University of Stuttgart
Stuttgart, Germany

M.Sc. in Information Technology - Current German GPA: **1.4** *2019 - 2021*

Courses: Robotics, Optimization, Deep Reinforcement Learning [link]

Frankfurt University of Applied Science
Frankfurt am Main, Germany

B. Eng. in Electrical Engineering and Information Technology - German GPA: **1.5** - US GPA: 3.7/4.0 *2015 - 2019*

Thesis: "Approaches to solve kidnapped robot problem" - Grade: 1.0/1.0 [link]

Le Hong Phong High School for the gifted
Ho Chi Minh City, Vietnam

majoring in Applied Physics - GPA: **9.2/10** *2012 - 2015*

Experience

Bosch Center for Artificial Intelligence
Renningen, Germany

Research Intern *May 2020 - Present*

- Research and implement robotics manipulation skill models based on Learning from Demonstration paradigms.
- Supervised by Dr. Meng Guo and Dr. Leonel Rozo

HLRS - High Performance Computing Center
Stuttgart, Germany

Student Research Assistant *November 2019 - April 2020*

- Researched and implemented in C++ new parallel programming models.
- Implemented back-end functionalities in DASH project http://www.dash-project.org/
- Maintained and configure HPC systems in HLRS.

Frankfurt University of Applied Science
Frankfurt am Main, Germany

Research Assistant *May 2019 - September 2019*

- Engaged in mobile robotics research (e.g state estimation, path planning) with Prof. Peter Nauth
- Designed and implemented novel Bayesian optimization models using Wifi signal and range sensor data for localization tasks in mobile robots, therefore enhanced the robustness of robot navigation up to 90% pose recovery rate
- Guided new student to operate robots in the Autonomous lab.

EyeQ Ltd.
Ho Chi Minh city, Vietnam

Robotics Engineer Intern *March 2018 to August 2018*

- Collaborated and with the developer team to develop practical solutions for customers, using state-of-the-art Deep Learning models
- Developed a prototyped navigation platform that can apply in industrial warehouses

Intel Corporation
Ho Chi Minh city, Vietnam

Product Development Engineer Intern *Jan 2017 to May 2017*

- Designed and implemented data analysis systems to process and analyze high volume unit test data in generated in manufacturing line
- Weekly validated and reported the quality of the Intel Thunderbolt Product manufacturing line
- Letter of Evaluation can be viewed in this link.

Open-source Projects

Ignition Physics tutorials and API documentation
Stuttgart, Germany

Google Season of Doc 2020 *September 2020 - now*

- Create comprehensive tutorials on creating/using custom physics plugins for Ignition Physics to power simulation.
- Create coherent API documentation for Ignition Physics library.
- Project website: [link], Project proposal: [link].

RoboComp's basic components
Stuttgart, Germany

Google Season of Doc 2019 *September 2019 - November 2019*

- Documented robotics components such as hardware drivers, cognitive processing components, etc.
- Documented tutorial of combining these components in RoboComp ecosystem for specific robotics tasks.
- Project website: [link], Project proposal: [link].

Flexible perception pipeline manipulation for RoboSherlock

Institute of Artificial Intelligence, University of Bremen, Germany

Google Summer of Code 2018 — *May 2018 - August 2018*

- Implemented paralleled pipelines scheduler API.
- Implemented robotics module dependencies query interface.
- Improved performance of Robosherlock pipelines by paralleling pipeline processes.
- Project: [link]. Docs: [link], Certification: [link].

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- Project: [link]. Docs: [link], Certification: [link].

Multi-modal Cluttered Scene Analysis in Knowledge Intensive Scenarios

Institute of Artificial Intelligence, University of Bremen, Germany

Google Summer of Code 2017 — *June 2017 - September 2018*

- Implemented symmetry-based object segmentation algorithm in complex and cluttered scene.
- Implemented object segment API for grasping system.
- Project: [link]. Demo: [link] Documentation: [link]. Certification: [link].

Skills

- **Language**: Python 2 & 3, C++11 & 14, Java, UNIX
- **Libraries and Frameworks**:
  - **Frameworks**: numpy, sklearn, scipy, pandas, Tensorflow 2, PyTorch.
  - **Robotics**: ROS, Gazebo, openAI Gym, Mujoco, KUKA, Panda arm.
  - **Others**: LaTeX, Matlab

Honors & Awards

Scholarships

- **Deutschlandstipendium 2020** provides funding for study at the University of Stuttgart.
- **DAAD Scholarship 2019** fully funds to conduct my Bachelor thesis at FH Frankfurt.
- **WUS Scholarship 2018** is financed by the Hessen Ministry of Economics, Energy, Transport and Regional Development (HMWEVL).
- **AmCham Scholarship 2017**, Best of the Bests Award: Top application score, top interview score.
- **eSilicon Scholarship 2017 & 2018**, Sunflower Mission Engineering & Technology Scholarship for Excellence

Competitions

Hackdays Rhein-Main Best solution Winner

Frankfurt am Main, Germany

Hackdays Rhein-Main — *May 2019*

- Developed an app solution for dialysis patients to plan an optimal travelling round trip via cities, where dialysis treatments are possible.
- Worked as Backend Developer to design optimized algorithms for trip planning and scheduling. Competition website: [link]

UNESCO Hackathon Vietnam Winner

Ho Chi Minh City, Vietnam

FOSSASIA and UNESCO — *October 2018*

- Developed the web application, Klima Kage to provide up-to-date climate and environmental data for journalists
- Project: [link].

Publications

Google Scholar - Citations: 26, h-index: 3, i10-index: 1

ORCID iD: https://orcid.org/0000-0003-0929-3316