An Thai **Le**

✉ an.thai.le97@gmail.com | 🏠 anindex.github.io | 🐙 anindex | in anindex

Education

University of Stuttgart   *Stuttgart, Germany*

M.Sc. in Information Technology - Current German GPA: **1.3**   *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 - Dec 2020*

- Research and implement robotics manipulation skill models with forces/torques reproduction based on Learning from Demonstration (LfD) and Reinforcement Learning (RL) paradigms.
- Successfully developed a proof of concept for the E-bike assembly task.
- Supervised by Dr. Meng Guo.

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 - Dec 2020*

- 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].

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, CMake.

Honors & Awards

SCHOLARSHIPS

- **Sony Awards 2021** recognizes execellent achievements in research activities at the University of Stuttgart.
- **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: 14, H-INDEX: 2

SERVE AS REVIEWER AT:

- **IEEE RA-L**.
- **IROS 2021**.