

Chien Liu

Experienced developer specialized in object detection, radar signal processing, and sensor fusion for autonomous driving

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WORK EXPERIENCE

Data Scientist Intern at [Teraki](#), Berlin

2021 April - 2021 September

- Initiated end-to-end deep learning approach for real-time radar object detection implemented with PyTorch
- Developed lightweight neural network for radar point clouds semantic segmentation
- Designed benchmark for radar processing algorithms
- Accelerate Python code with Cython

Research Assistant at [National Tsing Hua University](#)

October 2018 - June 2020

- Developed new algorithms solving visual odometry achieving state-of-the-art performance on KITTI benchmark
- Designed asynchronous distributed deep reinforcement learning with Tensorflow
- Built robot control interface for navigation task with Robotic Operating System (ROS)
- Designed, fabricated, and assembled camera and LiDAR mounted on physical robots

Student Research Assistant

February 2017 - June 2018

- Led industrial-academic collaboration project -Intelligent Malabar Chestnut Seeding Machine
- Designed image classification algorithm for seed orientation to improve production rate by 90 percent
- Implemented automation control system for motors and pneumatic system with C language

EDUCATION

Current Master of Science: Computational Science and Engineering

Rostock Universität, Rostock, Germany 2020 - Current

Bachelor of Science: Power Mechanical Engineering

National Tsing Hua University, Hsinchu, Taiwan 2014 - 2018

PROJECTS

Intelligent Robots:

[2nd Prize - AI at the Edge Challenge with NVIDIA 2020](#)

SKILLS

Programming Languages:

Python, C, C++, MATLAB

Software Libraries:

Tensorflow, PyTorch, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Streamlit, Pytest, OpenMP, Robotic Operating System (ROS)

Embedded Platform:

NVIDIA Jetson, Arduino

Cloud Computing Platform:

AWS, GCP

DevOps:

Git, Bitbucket

PUBLICATIONS

[Dynamic Attention-based Visual Odometry](#) (CVPR 2020)

[Toward Synergism in Macro Action Ensembles](#) (ICML 2020)

[Sim-to-Real: Virtual Guidance for Robot Navigation](#)
(NVIDIA's GPU Technology 2020)