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 at Teraki, Berlin

2021 April - Present

- 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
- Delivered data visualization tools

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

IEEE/CVF Computer Vision and Pattern Recognition Workshop: Dynamic Attention-based Visual Odometry (2020)

7th ICML Workshop on Automated Machine Learning (AutoML): Toward Synergism in Macro Action Ensembles (2020)

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