

Chien Liu

Experienced machine learning engineer specialized in object detection and sensor fusion for autonomous driving

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WORK EXPERIENCE

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

April 2021 - Sep 2021

Camera and Radar Sensor Fusion on Automobile

- Improved efficiency of data loading by creating suitable pipelines
- Accelerated data preprocessing code 10x faster
- Created interactive data visualization tools
- Initiated end-to-end object detection on radar point cloud
- Designed benchmark for camera radar sensor fusion

Research Assistant at [Elsa Lab](#), Taiwan

Oct 2018 - June 2020

Computer Vision on Automobile

- Achieved state-of-the-art performance on KITTI benchmark with innovative deep learning based visual odometry model
- Distributed training process among multiple GPUs which located on both local machines and cloud computing platform
- Conducted camera-LiDAR calibration on the automobile
- Researched on semantic segmentation and reinforcement learning

Student Research Assistant at [NTHU](#), Taiwan

Feb 2017 - June 2018

Plant Disease Detection in Orchid Factory

- Established image dataset which supported image argumentation
- Optimized CNN performance by leveraging transfer learning
- Integrated AI model, camera, and conveyor system, achieved 90% accuracy in orchid disease detection

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

AWARDS

Intelligent Robots:

NVIDIA - AI at the Edge Challenge
[2nd Place](#)

SKILLS

Programming Languages

Python, C, C++, MATLAB

Software Libraries

Tensorflow, PyTorch, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Streamlit, pytest, OpenMP, Robotic Operating System (ROS), OpenFlow, Ryu, Mininet

Embedded Platform

NVIDIA Jetson, Arduino

Cloud Computing Platform

AWS, GCP

DevOps

Git, Bitbucket, Atlassian

PUBLICATIONS

CVPR 2020

[Dynamic Attention-based Visual Odometry](#)

ICML 2020

[Toward Synergism in Macro Action Ensembles](#)

NVIDIA's GPU Technology 2020

[Sim-to-Real: Virtual Guidance for Robot Navigation](#)