Chenwei Liang · Algorithm Researcher · Ingolstadt, Germany · **chenwei_liang@outlook.com** · +49 15203781783

# Chenwei Liang | Resume

- Links: LinkedIn · Google Scholar · Personal Website
- Fields: Machine Learning, Computer Vision, Multimodal Learning
- Tech: Python, PyTorch, Linux, Git, LaTeX, C++, Docker, Matlab
- Language: English, Germany, Chinese

## Project Experience

2024-2025 **Dynamic Gaussian Splatting for Autonomous Driving**

- Proposed a 4D Gaussian Splatting approach for dynamic scene rendering, enhancing accuracy with semantic and temporal features.
- Enabled object-level editing and outperformed self-supervised methods in 4D reconstruction and novel view synthesis.

2023-2024 **3D Scene Understanding in V2X System** Fraunhofer IVI

- Proposed first vehicle collaboration algorithm for camera-only 3D semantic occupancy prediction, outperforming state-of-the-art methods.
- Enabled real-time, efficient information transmission between vehicles.

2023-2024 **Software Tools for Processing Traffic Datasets** Fraunhofer IVI

- Developed an anonymization software tool for traffic datasets, which can automatically blur faces and license plates and a blockchain-based dataset management system

2022-2023 **Audio-Visual Speech Representation Learning** Technical University of Braunschweig

- Proposed a novel method to compress a state-of-the-art audio-visual speech representation model, reducing parameters by 83%. Retained 97% of the model's performance in speech recognition and maintained effectiveness across various downstream tasks

## Education

2019-2023 **M.Sc. Electrical Engineering** Technical University of Braunschweig

- Focus: Information Technology
- Master Thesis: Audio-Visual Representation Learning by Distillation Methods

2015-2019 **B.Eng. Electrical Engineering** University of Shanghai for Science and Technology

- Double degree with Hamburg University of Applied Sciences
- Bachelor thesis: Camera-based intelligent robotic sorting system

## Publication List

2025 **CoDa-4DGS: Dynamic Gaussian Splatting with Context and Deformation Awareness for Autonomous Driving [pdf]** ICCV

Rui Song*, **Chenwei Liang***, Yan Xia, Walter Zimmer, Hu Cao, Holger Caesar, Andreas Festag, Alois Knoll

2024 **Collaborative Semantic Occupancy Prediction with Hybrid Feature Fusion in Connected Automated Vehicles [pdf]** CVPR

Rui Song, **Chenwei Liang**, Hu Cao, Zhiran Yan, Walter Zimmer, Markus Gross, Andreas Festag, Alois Knoll

2023 **An Efficient and Noise-Robust Audiovisual Encoder for Audiovisual Speech Recognition [pdf]** INTERSPEECH

Zhengyang Li, **Chenwei Liang**, Timo Lohrenz, Marvin Sach, Björn Möller, Tim Fingscheidt