

Diandian Guo

University of Stuttgart

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Personal Profile

I'm a Master's student at the University of Stuttgart. I learn Electric Automobile, have finished courses like Deep learning, Detection and pattern recognition, computer vision with very good grades. I Have great interest in deep learning and computer vision related topics. Hardworking and proactive, looking for a good master thesis to prepare for a good PHD in the future.

Education

University of Stuttgart

MSc in Electric Automobile

Stuttgart, Germany

Nov 2020 - Current

- Average Note: 1.6
- Related courses:** Deep learning(1.0), Detection and Pattern Recognition(1.0), Computer Vision(1.3), Optische Sensorik für Autonome Systeme(1.3), Matrix Computations in Signal Processing and Machine Learning(1.0), Statistical and Adaptive Signal Processing, etc.

Jilin University

BSc in Automotive Engineering

Jilin, China

Sept 2016 - June 2020

- Graduated with Distinction
- Got the top award of scholarship for 3 times, second award for 1 time.

Project Experience

Deep Leaning Lab

Diabetic retinopathy classification

Vaihingen, Stuttgart

Nov 2021 - Jan 2022

- Built a CNN for diabetic retinopathy classification.
- Implementation of the heat map part for model analysis.
- Implementation of the ensemble learning part.
- Technical Skills:** Python with Tensorflow, NumPy, Matplotlib, Pandas, Ubuntu Linux, Git.
- Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

Deep Leaning Lab

Human activity classification

Vaihingen, Stuttgart

Jan 2022 - Apr 2022

- Built the LSTM model for human activity classification.
- Implemented the input data pipeline, analysed the results.
- Technical Skills:** Python with Pytorch, NumPy, Matplotlib, Pandas, Ubuntu Linux, Git.
- Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

Research Thesis

Correcting the semantic mismatch of unpaired semantic image synthesis in autonomous driving datasets

Vaihingen, Stuttgart

Apr 2022 - Current

- Optimized the discriminator of the GAN(ProjectiveGAN, StyleGAN, EPE, etc.).
- Designed the additional decoder to reconstruct the image with U-net in pixel and wavelet domain, achieved the best MIOU.
- Technical Skills:** Python with Pytorch, NumPy, Matplotlib, Pandas, Ubuntu Linux, Git.
- Soft Skills:** Documenting skills, Time Management, Communication, Logical Thinking.

Full time internship in BOSCH

Deep Learning based Lane and Road Edge Detection

Leonberg, Stuttgart

Aug 2022 - Current

- Weighting method implementation and analysis: Put more weights on points of ego lines to help the model learn road splitting scenes. Achieve better results than original baseline.
- Anchor based model optimization: Dataset processing, implementation of the horizontal line detection part, training result analysis
- Anchorless model optimization: Improve the histogram(true positive confidence), result analysis.
- Technical Skills:** Python, Bolt, NumPy, Pandas, Ubuntu Linux, Git.
- Soft Skills:** Documenting skills, Time Management, Communication, Presentation skills.

Languages

Chinese Native language

English Fluent

German unskilled