OLIVER HAHN

olvrhhn.github.io | oliver_hahn@online.de

EDUCATION

M.Sc. Computational Engineering, Technical University of Darmstadt — Nov 2018 - Apr 2022
Incl. Exchange Semester at Tongji University Shanghai [Aug 2019 - Jan 2020]
Focus: Machine Learning & Computer Vision

M.Sc. Mechanical Engineering, Technical University of Darmstadt — since Sep 2018
Focus: Mechatronics

B.Sc. Mechanical Engineering, Technical University of Darmstadt — Oct 2014 - Sep 2018
Focus: Mechatronics

PUBLICATIONS

Sherwin Bahmani*, **Oliver Hahn***, Eduard Zamfir*, Nikita Araslanov, Daniel Cremers and Stefan Roth. "Semantic Self-adaptation: Enhancing Generalization with a Single Sample (Long Paper)". In: *arXiv pre-print*. 2022.

Sherwin Bahmani*, **Oliver Hahn***, Eduard Zamfir*, Nikita Araslanov, Daniel Cremers and Stefan Roth. "Semantic Self-adaptation: Enhancing Generalization with a Single Sample (Short Paper)". In: *ECCV Workshop*. 2022.

Daniel Schöneberger and **Oliver Hahn**. "Electrodynamic Linear Actuator with Twin Coil". DPMA Patent: DE 10 2021 113 012 3. 2022.

PROFESSIONAL EXPERIENCE

Master's Thesis, Visual Inference Lab - TU Darmstadt — Sep 2021 - Mar 2022
Multimodal Data Augmentation for Image Captioning
Advisors: M.Sc. Shweta Mahajan, Prof. Stefan Roth

Student Research Assistant, Visual Inference Lab - TU Darmstadt — Apr 2021 - Aug 2021
Temporal Consistency for Dense Unsupervised Video Segmentation
Advisors: M.Sc. Nikita Araslanov, Prof. Stefan Roth

Student Research Assistant, Institute for Mechatronic Systems - TU Darmstadt — Nov 2018 - Okt 2020
Multi-Objective Optimization of Electrical Machines
Advisors: Ph.D. Daniel Schöneberger, Prof. Stephan Rinderknecht

Internship, Bosch - Munich — Mai 2018 - Oct 2018
Optimization of Component Topologies in Electrical Machines
Advisor: Ph.D. Christian Boie

Bachelor's Thesis, Institute for Mechatronic Systems - TU Darmstadt — Oct 2017 - Apr 2018
Development of an Electrodynamic Linear Actuator for Electrified Drivetrains
Advisors: Ph.D. Daniel Schöneberger, Prof. Stephan Rinderknecht

UNIVERSITY PROJECTS

Project Deep Learning for Computer Vision, Visual Inference Lab
Research on Domain Generalization for Semantic Segmentation, *Advisors: M.Sc. Nikita Araslanov, Prof. Stefan Roth*

Deep Learning for Medical Imaging, Interactive Graphics Systems Group
Fine-Grained Semantic Segmentation for Skin Lesion, *Advisor: Ph.D. Anirban Mukhopadhyay*

Deep Learning Architectures and Methods, Artificial Intelligence and Machine Learning Lab
Deep Learning for Audio Super-Resolution, *Advisors: M.Sc. Patrick Schramowski, Prof. Kristian Kersting*

Deep Learning for Natural Language Processing, Ubiquitous Knowledge Processing Lab
Ranking Clarifying Questions Using BERT, *Advisors: Ph.D. Ivan Habernal, Ph.D. Mohsen Mesgar*

Deep Generative Models, Interactive Graphics Systems Group
Learning a Generative Model from a Single Natural Image Using SinGAN, *Advisor: Ph.D. Anirban Mukhopadhyay*

Machine Learning for Autonomous UAVs, Institute of Flight-Systems and Automatic Control
Flight Trajectory Forecasting for Dynamic Objects, *Advisors: Ph.D. Henrik Heier, Prof. Uwe Klingauf*

SKILLS

Programming: Python [PyTorch, NumPy, OpenCV, NLTK], Matlab, Java, Git, LaTeX, HTML/CSS/JavaScript, Bash, Linux

Languages: **German** - Native, **English** - Fluent [UNIcert C1], **Chinese** - Basic [UNIcert B1], **French** - Basic, **Polish** - Native