OLIVER HAHN

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EDUCATION

Ph.D. Student in Computer Science, Technical University of Darmstadt　　　　　　　　Since Oct 2022
Advisor: Prof. Stefan Roth (Visual Inference Lab)
Topic: Scene Understanding with limited Supervision

M.Sc. Computational Engineering, Technical University of Darmstadt　　　　　Nov 2018 – Apr 2022
Focus: Machine Learning & Computer Vision
Incl. Exchange Semester at Tongji University Shanghai (Fall 2019)

B.Sc. & M.Sc. Mechanical Engineering, Technical University of Darmstadt　　　　Oct 2014 – Mar 2023
Focus: Mechatronics

PUBLICATIONS

Oliver Hahn, Nikita Araslanov, Simone Schaub-Meyer and Stefan Roth. Boosting Unsupervised Semantic Segmentation with Principal Mask Proposals. in Proc. TMLR Sep. 2024.

Christoph Reich, **Oliver Hahn**, Daniel Cremers, Stefan Roth and Biplob Debnath. A Perspective on Deep Vision Performance with Standard Image and Video Codecs. in CVPRW. 2024. (Best Student Paper Award @ AIS Workshop (CVPR 2024))

Sherwin Bahmani*, **Oliver Hahn***, Eduard Zamfir*, Nikita Araslanov, Daniel Cremers and Stefan Roth. Semantic Self-adaptation: Enhancing Generalization with a Single Sample. in Proc. TMLR July. 2023.

Daniel Schöneberger and **Oliver Hahn**. Electrodynamic Linear Twin Coil Actuator. DPMA Patent: DE 10 2021 113 012.3. 2022.

ACADEMIC SERVICE

Conference Reviewer: ECCV 2024, **Journal Reviewer:** TMLR (since 2024)
Teaching Assistant: Computer Vision I (Fall 2022), Computer Architecture (Summer 2024)
Supervisor Project Course: Deep Learning for Computer Vision (Summer 2023)
Reading Group Co-Organizer: Joint reading group at TU Darmstadt & Max Planck Institute for Informatics

PROFESSIONAL EXPERIENCE

Master's Thesis, Visual Inference Lab - TU Darmstadt　　　　　　　　　　　Sep 2021 – Mar 2022
Multimodal Data Augmentation for Image Captioning
Advisors: 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: 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: Daniel Schöneberger, Prof. Stephan Rinderknecht

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

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

PROJECT SUPERVISION

Master Thesis Co-Supervision, Jannik Endres   ongoing
Depth Estimation from Omnidirectional Cameras using Deep Learning
Master Thesis Supervision, Xinrui Gong   ongoing
Unsupervised Video Instance Segmentation via Lightweight Pseudo-Label Mining
Master Thesis Co-Supervision, Christoph Reich   2023
Deep Image Codec Control for Vision Models. Co-Supervisor Master's Thesis
Master Thesis Co-Supervision, Melda Eksi   2023
Optical-Flow-Guided Pretrained Video Instance Segmentation

SKILLS

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

Languages: **German** – Native, **English** – Fluent (C1), **Chinese** – Basic (B1), **French** – Basic, **Polish** – Native