JONAS SCHULT

PhD Candidate in Computer Vision, RWTH Aachen University

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EDUCATION

PhD Candidate in 3D Computer Vision Computer Vision Chair at RWTH Aachen University

February 2020 - ongoing

Aachen, Germany

- Machine Learning & Computer Vision Research for 3D visual scene understanding with emphasis on 3D semantic (instance) segmentation
- Teaching Assistant for Operating Systems (Summer 2020) and advanced topics of Computer Vision 2 (Winter 2020 - 2022)
 - Managing 24 student assistants, e.g. organization of exercise groups
 - Lecturing exercise classes for >800 students

Master in Computer Science - Grade: 1.2 (with distinction) **RWTH Aachen University**

Ctober 2017 - January 2020

Aachen, Germany

- Thesis (Grade 1.0): DualConvNet (CVPR'20 Oral)
- Specializing in Machine Learning and Computer Vision
- Minor: Economics
- Erasmus exchange semester at the NTNU Trondheim, Norway

Bachelor in Computer Science - Grade: 1.6 (good) **RWTH Aachen University**

Ctober 2013 - September 2016

Aachen, Germany

- Thesis (Grade 1.0): Clustering of Attributed and Evolving Graphs
- Minor: Electrical Engineering

WORK EXPERIENCES

Research Scientist Intern for 3D Generative AI Meta

June 2023 - November 2023

Menlo Park, CA, USA

Student Research Assistant for 3D Scene Understanding Computer Vision Chair at RWTH Aachen University

Semantic (Instance) Segmentation of 3D point clouds (Tensorflow/PyTorch)

Research Internship for 2D Object Detection

Department Sensorik und Fusion at Volkswagen Research

Detection of trailors' coupling points in monocular images, including:

- Dataset generation and creation of a labelling tool
- Development of deep convolutional neural networks (Pvthon/Caffe)

Student Assistant for Full Stack Web Development Medien für die Lehre (MfL) at RWTH Aachen University

April 2015 - September 2016

Aachen, Germany

Full Stack Web Development of Serious Games (PHP/Symfony, SQL, JS)

AWARDS

Inclusion on the Dean's List

October 2018 - October 2019

Granted to top 5% of best students

Deutschlandstipendium

Education fund of the RWTH Aachen

Erasmus+ Scholarship

Exchange semester in Norway

VOLUNTARY WORK

Wohnheim Hainbuchenstraße e.V.

Movember 2017 - November 2019

Active member of the student rental service unit for the student dorm HBS

BeBuddy Program

May 2015 - June 2016

Mentor for exchange students during their stay at RWTH Aachen

ACADEMIC SERVICES

Reviewer for CV Conferences

2022 - ongoing

WACV ('23), CVPR ('23), ICCV ('23)

Workshop Organizer

2023

OpenSUN3D at ICCV'23

LANGUAGES

German **English**



PROGRAMMING

Pvthon PvTorch Caffe Keras Tensorflow C/C++ Linux (Shell) WebDev Java **AWS**

PERSONAL INTERESTS

Climbing & Bouldering Running

Football Guitar Science & Physics

Hardware tinkering

PUBLICATIONS

Publications

- Ayça Takmaz*, Jonas Schult*, Irem Kaftan, Mertcan Akçay, Bastian Leibe, Robert Sumner, Francis Engelmann, and Siyu Tang (2023). "3D Segmentation of Humans in Point Clouds with Synthetic Data". In: International Conference on Computer Vision (ICCV).
- **Jonas Schult**, Francis Engelmann, Alexander Hermans, Or Litany, Siyu Tang, and Bastian Leibe (2023). "Mask3D for 3D Semantic Instance Segmentation". In: *International Conference on Robotics and Automation (ICRA)*.
- Karim Abou Zeid*, **Jonas Schult***, Alexander Hermans, and Bastian Leibe (2023). "Point2Vec for Self-Supervised Representation Learning on Point Clouds". In: *arXiv*:2303.16570.
- Yue, Yuanwen, Sabarinath Mahadevan, Jonas Schult, Francis Engelmann, Bastian Leibe, Konrad Schindler, and Theodora Kontogianni (2023). "AG-ILE3D: Attention Guided Interactive Multi-object 3D Segmentation". In: arXiv:2306.00977.
- Jonas Schult, Alexander Hermans, Francis Engelmann, Otmar Hilliges, Siyu Tang, and Bastian Leibe (2022). "M2F3D: Mask2Former for 3D Instance Segmentation". In: IEEE Conference on Computer Vision and Pattern Recognition, T4V Workshop (CVPR) (Spotlight).
- Alexey Nekrasov*, Jonas Schult*, Or Litany, Bastian Leibe, and Francis Engelmann (2021). "Mix3D: Out-of-Context Data Augmentation for 3D Scenes". In: International Conference on 3D Vision (3DV) (Oral Presentation).
- Jonas Schult*, Francis Engelmann*, Theodora Kontogianni, and Bastian Leibe (2020). "DualConvMesh-Net: Joint Geodesic and Euclidean Convolutions on 3D Meshes". In: IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (Oral Presentation).
- Francis Engelmann, Theodora Kontogianni, Jonas Schult, and Bastian Leibe (2018). "Know What Your Neighbors Do: 3D Semantic Segmentation of Point Clouds". In: IEEE European Conference on Computer Vision, GMDL Workshop (ECCV).
- Schomerus, Volker, Jonas Konrad, Jonas Schult, Marcel Holdegel, and Mikael Johansson (2018). "Fahrzeugumfeldwahrnehmung für automatische Fahrfunktionen mit Convolutional Neural Networks". In: Automatisiertes und vernetztes Fahren (AAET).

RFFFRFFS

Prof. Dr. Bastian Leibe Doctoral Advisor

- @ Computer Vision Chair, RWTH
- ☑ leibe@vision.rwth-aachen.de

Dr. Francis Engelmann Colleague and Master Thesis Supervisor

- @ ETH AI Center

Dr. Volker Schomerus Internship Supervisor

- Volkswagen Research

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July 30, 2023