JONAS SCHULT

Computer Vision & Machine Learning Researcher, RWTH Aachen University

November 22, 1994 | Düren, Germany | schult.jonas@gmail.com | jonasschult.github.io
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WORK EXPERIENCES

Research Assistant at the Computer Vision Group
RWTH Aachen University

February 2020 – ongoing | Aachen, Germany

- Machine Learning and Computer Vision Research including:
  - 3D Semantic (Instance) Segmentation using Deep Learning Methods
  - Learning 3D Neural Scene Representations for Novel View Synthesis
- 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

Student Research Assistant for 3D Scene Understanding
Visual Computing Institute at the RWTH Aachen University

September 2017 – September 2019 | Aachen, Germany

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

Research Internship
Department Sensorik und Fusion at Volkswagen Research

September 2016 – December 2016 | Wolfsburg, Germany

Detection of trailors' coupling points in monocular images, including:
- Dataset generation and creation of a labelling tool
- Development of deep convolutional neural networks (Python/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)

EDUCATION

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

October 2017 – January 2020 | Aachen, Germany

- Thesis (Grade 1.0): *DualConvNet – Euclidean and Geodesic Convolutions for 3D Semantic Segmentation on Meshes (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

October 2013 – September 2016 | Aachen, Germany

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

High School Diploma – Grade: 1.4 (very good)
St. Ursula Gymnasium

August 2005 – April 2013 | Dorsten, Germany

- Intensive courses: Mathematics and Physics

AWARDS

Inclusion on the Dean's List
October 2018 – October 2019
Granted to top 5% of best students

Deutschlandstipendium
October 2017 – October 2019
Education fund of the RWTH Aachen

Erasmus+ Scholarship
January 2017 – June 2017
Exchange semester in Norway

VOLUNTARY WORK

BeBuddy Program
May 2015 – June 2016
Mentor for exchange students during their stay at the RWTH Aachen

Wohnheim Hainbuchenstraße e.V.
November 2017 – November 2019
Active member of the student rental service unit for the student dorm HBS

LANGUAGES

German
English

PROGRAMMING

Python | PyTorch | Keras | Caffe | Tensorflow | C/C++ | Linux (Shell) | Web Development | Java | Git

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 (2022). "3D Segmentation of Humans in Point Clouds with Synthetic Data". In: *arXiv:2212.00786*.
- **Jonas Schult**, Francis Engelmann, Alexander Hermans, Or Litany, Siyu Tang, and Bastian Leibe (2022). "Mask3D for 3D Semantic Instance Segmentation". In: *arXiv:2210.03105*.
- 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)*.

December 2, 2022

REFEREES

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
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Internship Supervisor
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