Nikolai Kalischek

Zürich, Switzerland

d1nofuzi.github.io

Education

11/2019 — Present
ETH Zurich, Switzerland
PhD in Computer Science in the Photogrammetry and Remote Sensing group, supervised by Prof. Konrad Schindler and Prof. Jan Dirk Wegner

10/2017 — 05/2019
University of Ulm, Germany
MSc in Computer Science (1.0, German system, GPA 4.0, best of the year)
Specialization in deep learning and computer vision

Master thesis: "Deep Domain Adaptation for Facial Expression Analysis" (1.0)

10/2013 — 12/2016
Berlin University of Technology, Germany
BSc in Mathematics (2.2/ GPA 2.8)
Main focus: graph theory and combinatorics

Bachelor thesis: "Toplogical drawings of bipartite graphs" (1.7 / 3.3)

09/2011 — 03/2012
University of Augsburg, Germany
Early study in Physics as a high school student

Selected Publications

Kalischek, N., Peters, T., Wegner, J. D., & Schindler, K. (2022). Tetrahedral Diffusion Models for 3D Shape Generation. Submitted to CVPR ´23.

Kalischek, N., Daudt, R. C., Peters, T., Furrer, R., Wegner, J. D., & Schindler, K. (2022). BiasBed--Rigorous Texture Bias Evaluation. Submitted to CVPR ´23.

Kalischek, N., Lang, N., Renier, C., Daudt, R., Addoah, T., Thompson, W., Blaser-Hart, W., Garrett, R., Schindler, K., and Wegner, J. 2022. Satellite-based high-resolution maps of cocoa for Cote d'Ivoire and Ghana. Under Review in Nature Food.

Lang, N., **Kalischek, N.**, Armston, J., Schindler, K., Dubayah, R., and Wegner, J. 2022. Global canopy height regression and uncertainty estimation from GEDI LIDAR waveforms with deep ensembles. Remote Sensing of Environment, 268, p.112760.

Kalischek, N., Wegner, J., and Schindler, K. 2021. In the light of feature distributions: moment matching for Neural Style Transfer. In IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2021).

Kalischek, N., Thiam, P., Bellmann, P., and Schwenker, F. 2019. Deep domain adaptation for facial expression analysis. In 2019 8th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW) (pp. 317–323).

Awards

2019 — **Winner of 2019 eXXellence Award**
best Master thesis in Computer Sience, University of Ulm

Talks

07/2022 — **Quantitative Remote Sensing Summer School, University of Maryland, USA**
Bayesian Deep Learning for remote sensing

Work experience

03/2020 — Present — **ETH Zurich, Switzerland**
Teaching Assistant in the Photogrammetry and Remote Sensing group
- Photogrammetry Spring 2020, 2021, 2022

12/2017 — 03/2019 — **Daimler AG, Ulm, Germany**
Working student, Research and Development - Sensorfusion (20h / week)
- Implementation of a deep network for interpolation of sensor data

09/2016 — 03/2017 — **Daimler AG, Stuttgart, Germany**
Internship Software Engineering, Changemanagement Daimler Trucks
- Full development of changemanagment webservice
- Rollout for Turkey and Brazil

Technical skills

ML in Python — PyTorch, TensorFlow, NumPy, Scikit-learn, Open3D, FFCV, Pandas, Matplotlib, rasterio, GDAL

Web development — PHP, JavaScript, HTML, CSS, jQuery, Node.js

Others — Java, SQL, Git, Linux, Matlab

Languages

German (native), English (fluent), Spanish (basic)