Antonin Sulc

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Research Interests	Anomaly Detection, Computer Vision, Natural Language Processing
Technologies	Python, PyTorch, Streamlit, PyCUDA, CUDA, R, TensorFlow, CUDA, MATLAB, C
Languages	English (C1), German (B2), Czech (native)

Education

University of Konstanz, Konstanz, Germany

PhD, Computer Vision, 2015 - 2020

- Thesis Topic: *Lightfield Analysis for non-Lambertian Scenes*
- Grade: *Magna Cum Laude* (1.0)
- Advisors: Prof. Dr. Bastian Goldlücke

Czech Technical University, Prague, Czech Republic

M.S., Artificial Intelligence, 2011 - 2014

- Topic: *On parametric model creation with Neural Modeling Fields*, nominated as CS Master Thesis of Year 2014 in Czech Republic
- Advisor: Dr. Michal Vavrecka

B.S., Intelligent Systems, 2008 - 2011

- Topic: *Covariance Matrix Adaptation Evolution Strategy*
- Advisor: Dr. Jan Drchal

Work History

Data Scientist May'21 - ∞
MCS DESY Hamburg
Accelerator Control Systems,

Researcher March'20 - August'20
University of Haifa,
Marine Imaging Lab
Supervisor: Dr. Tali Treibitz

Researcher & Tutor Jan'15 - Sept'20
University of Konstanz,
Computer Vision and Image Processing Group
Supervisor: Prof. Dr. Bastian Goldlücke,

Researcher Oct'18 - March'19
National Institute of Informatics in Tokyo,
Imari Sato Lab
Supervisor: Prof. Dr. Imari Sato

Software Engineer & Data Scientist Feb'14 - Dec'15
Vendavo Inc., Prague, Czech Republic
MAAS Team, Builduing a Recommendation System
Supervisor: Dr. Ludek Kopacek, Eric Bergerson

Publications

1. **A. Sulc**, O. R. Kammering, T. Wilksen. A Data-Driven Beam Trajectory Monitoring at the European XFEL at *International Conference in Particle Accelerators 2022*, Bangkok, Thailand

2. **A. Sulc**, O. A. Eichler, T. Wilksen A Data-Driven Anomaly Detection on SRF Cavities at the European XFEL at *International Conference in Particle Accelerators 2022, Bangkok, Thailand and Institute of Physics Journal of Physics: Conference Series*

3. **A. Sulc**, O. Johannsen, B. Goldluecke. Recovery of Geometry, Natural Illumination and BRDF from a Single Light Field Image, In *Journal of the Optical Society of America A*, 2021,

4. **A. Sulc**, I. Sato, B. Goldluecke, T. Treibitz. Towards Monocular Shape from Refraction, In BMVC, 2021, **accepted as oral (3.3% acceptance)**

5. S. Ishihara, **A. Sulc**, I. Sato. Depth Estimation Using Spectrally Varying Defocus Blur. In *Journal of the Optical Society of America A*, 2021

6. S. Ishihara, **A. Sulc**, I. Sato. Depth from Spectral Defocus Blur. In *Proc. International Conference in Image Processing (ICIP)*, 2019

7. M. Zhu, A. Alperovich, O. Johannsen, **A. Sulc**, B. Goldluecke. An Epipolar Volume Autoencoder with Adversarial Loss for Deep Light Field Super-Resolution. In *Proc. Conference on Computer Vision and Pattern Recognition Workshop (CVPRW)*, 2019.

8. **A. Sulc**, O. Johannsen, B. Goldluecke. Inverse Lightfield Rendering for Shape, Reflection and Natural Illumination. In *Proc. 11th International Conference on Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR)*, 2017.

9. O. Johannsen, **A. Sulc**[1], N. Marniok, B. Goldluecke. Layered scene reconstruction from multiple light field camera views. In *Proc. Asian Conference on Computer Vision (ACCV)*, 2016.

10. **A. Sulc**, A. Alperovich, N. Marniok, B. Goldluecke. Reflection Separation in Light Fields based on Sparse Coding and Specular Flow. In *Proc. Vision, Modelling and Visualization (VMV)*, 2016.

11. O. Johannsen, **A. Sulc**, B. Goldluecke. Occlusion-aware depth estimation using sparse light field coding. In *Proc. German Conference on Computer Vision (GCPR)*, 2016.

12. O. Johannsen, **A. Sulc**, B. Goldluecke. What Sparse Light Field Coding Reveals About Scene Structure. In *Proc. Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

13. O. Johannsen, **A. Sulc**, B. Goldluecke. Variational Separation of Light Field Layers. In *Proc. Vision, Modelling and Visualization (VMV)*, 2015.

14. O. Johannsen, **A. Sulc**, B. Goldluecke. On Linear Structure from Motion for Light Field Cameras. In *Proc. International Conference on Computer Vision (ICCV)*, 2015.

[1] Equal Contribution