Antonin Sulc

Contact Information	+49 152 265 75 325 sulc.antonin@gmail.com http://sulcantonin.github.io	Hamburg Germany

Research Interests	Anomaly Detection, Combinatorial Optimisation, Applied Machine Learning, Computer Vision
Technologies	Python, Pytorch, Streamlit, PyCUDA, CUDA, R, TensorFlow, CUDA, MATLAB, C, Massive Database Systems
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 Goldlucke,

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