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**RESEARCH**   **Robotics – Computer Vision – Machine Learning**  
Physical Intuition, Dynamics Modeling, Visuomotor Control

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**EDUCATION**   **University of Oxford, 2017 – 2021 (expected)**  
PhD Student in Robotics & Computer Vision, Advisors: Prof. Ingmar Posner, Prof. Andrea Vedaldi

**Stanford University, 2015 – 2016**  
Visiting Student Researcher in Computer Vision, Advisor: Prof. Fei-Fei Li

**Dresden University of Technology, 2011 – 2017**  
German Diplom in Computer Science, Advisor: Prof. Carsten Rother

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**HONORS**   **Carl Zeiss Diplom Award in Computer Science, 2017**  
Award for outstanding accomplishments in a Diplom or Master's Thesis in the domains of scientific computing, machine learning or image processing.

**German Academic Scholarship Foundation, 2012 – 2017**  
Germany's most prestigious student fellowship awarded for outstanding academic achievements to the top ½ % of the German student population.

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**SELECTED PUBLICATIONS**   **RELATE: Physically Plausible Multi-Object Scene Synthesis Using Structured Latent Spaces.**  
*Advances in Neural Information Processing Systems (NeurIPS)*, 2020.  
S. Ehrhardt\*, **O. Groth\***, A. Monzpart, M. Engelcke, I. Posner, N. Mitra, A. Vedaldi

**ShapeStacks: Learning Vision-Based Physical Intuition for Generalised Object Stacking.**  
*European Conference on Computer Vision (ECCV)*, 2018.  
**O. Groth**, F. B. Fuchs, I. Posner, A. Vedaldi

**Visual Genome: Connecting Language and Vision Using Crowdsourced Dense Image Annotations.**  
*International Journal for Computer Vision (IJCV)*, 2017.  
R. Krishna, Y. Zhu, **O. Groth**, J. Johnson, K. Hata, J. Kravitz, S. Chen, Y. Kalantidis, L.-J. Li, D. A. Shamma, M. S. Bernstein, L. Fei-Fei.

**Visual7W: Grounded Question Answering in Images.**  
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.  
Y. Zhu, **O. Groth**, M. S. Bernstein, L. Fei-Fei.

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**PROFESSIONAL EXPERIENCE**   **Software Engineering Internship**  
Inoxision GmbH, Neuenmarkt, Germany; July 2017 – September 2017  
Developed data driven algorithms for document classification, retrieval and semantic segmentation.

**Software Engineering Internship**  
Transinsight GmbH, Dresden, Germany; June 2014 – February 2015  
Improved autocompletion of search queries for medical publication search engine *gopubmed.org*.

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**PUBLIC SPEAKING**   **@KIT 2019**  
AI in 2019 – Where is my Hoverboard?, Berlin 2019  
Showcased state-of-the-art deep learning algorithms in computer vision, natural language processing and robotic control and explained their potential legal implications.

**TEDx Talk**  
Why Robots Need to Make their own Experiences, TEDxDresden 2018  
Talked about physical intuition and its acquisition with computer simulations and machine learning.

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**VOLUNTEERING**   **Stanford German Student Association**  
Committee Member, Stanford, United States; April 2015 – October 2015  
Helped organizing public socials and invited speaker events on Stanford campus.

**German Academic Scholarship Foundation**  
Regional Spokesperson, Dresden, Germany; June 2013 – June 2014  
Chaired a group of 200 fellows of the scholarship organization.

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