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**RESEARCH**    **Robotics – Computer Vision – Machine Learning**  
Self-supervised Exploration, Physical Intuition, Visuomotor Control

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**EDUCATION**    **University of Oxford, 2017 – 2022**  
PhD Student in Robotics and 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**    **Goal-Conditioned End-to-End Visuomotor Control for Versatile Skill Primitives**  
*IEEE International Conference on Robotics and Automation (ICRA), 2021.*  
**O. Groth**, C.-M. Hung, A. Vedaldi, I. Posner

**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**    **Research Scientist**  
DeepMind, London, United Kingdom; January 2022 – present  
Research in self-supervised exploration for embodied AI

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

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**PUBLIC SPEAKING**    **AI & Law Podcast Series**  
“Was AI uns gebracht hat und wohin”, Evil Legal 2021  
German podcast series with IT lawyer Peter Hense on advancements in machine learning and their implications for law, economy, and society.

**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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**COMMUNITY SERVICE**    **Academic Reviewing**  
Served as reviewer at BMVC 2020, ICRA 2021 and NeurIPS 2021

**German Academic Scholarship Foundation**  
Elected spokesperson of ~200 scholarship recipients, Dresden, Germany; June 2013 – June 2014

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