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

EDUCATION **University of Oxford, 2017 – 2021 (expected)**
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

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.

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. Monszpart, 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.

PROFESSIONAL EXPERIENCE **Research Scientist Internship**
DeepMind, London, United Kingdom; January 2021 – June 2021
Robotic control research, supervised by Prof. Martin Riedmiller

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

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.

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
