

Bartłomiej Baranowski

PhD Candidate, Visual Computing Lab, Technical University of Munich

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I work on spatial intelligence for perceiving, reasoning about, and acting in the 3D world, spanning 3D reconstruction, scene understanding, and vision-language models.

EDUCATION	Technical University of MunichNov 2025 – present PhD Candidate, Visual Computing Lab - Advised by Prof. Dr. Matthias Nießner. University of Tübingen2022 – 2025 MSc in Machine Learning - Master's thesis on 3D Gaussian Splatting in Prof. A. Geiger's group, published as ConeGS. Research assistant in the group, Sep 2025 – Nov 2025. - Research assistant in Prof. Baumgartner's group (medical imaging), Apr 2023 – Dec 2023. Lodz University of Technology2018 – 2022 BEng in Computer Science
PUBLICATIONS	OneCanvas: 3D Scene Understanding via Panoramic Reprojection B. Baranowski, D. Z. Chen, M. Nießner. arXiv preprint, 2026. ConeGS: Error-Guided Densification Using Pixel Cones for Improved Reconstruction with Fewer Primitives B. Baranowski, S. Esposito, P. Gschoßmann, A. Chen, A. Geiger. International Conference on 3D Vision (3DV), 2026. ORAL
EXPERIENCE	Data ScientistJan 2022 – Oct 2022 MIM Solutions (Folliscan) - Ultrasound-based assessment of ovarian reserve, detecting and counting antral follicles from ultrasound video with 2D and 3D deep learning models (PyTorch) served through an API. Software DeveloperAug 2021 – Jan 2022 Digica - Object detection and semantic segmentation of street-utility objects from UAV footage (Python, PyTorch). Associate Software DeveloperDec 2019 – Jan 2021 Fujitsu Łódź - Automotive digital-twin application with stream processing and object detection and similarity for vehicle video, deployed on AWS (Python, TensorFlow, Java).
TEACHING	Teaching Assistant2026 – present Advanced Deep Learning for Computer Vision (ADL4CV), TUM
AWARDS & HONORS	- Oral Presentation, 3DV 2026 (ConeGS). - Rector's Scholarship (twice), Lodz University of Technology.

Skills Programming. Python (PyTorch, JAX), C++, CUDA, Java.	Languages Polish (native), English (C1), German (B2).	Interests Playing accordion, running, climbing.
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