Xinrui Gong

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EDUCATION BACKGROUND

M.Sc. Computational Engineering, Technical University of Darmstadt Oct 2021 - Mar 2025

Focus: Machine Learning & Computer Vision Grade: 1.19/1 (top 10%, scale 1.0-5.0, 1.0 best)

B.Eng. Mechanical Engineering, China University of Petroleum (East China)

Sep 2016 - Jun 2020

Focus: Intelligent Machinery Grade: 89.9/100 (top 5%)

PUBLICATIONS

[1] **Xinrui Gong***, Oliver Hahn*, Christoph Reich, Krishnakant Singh, Simone Schaub-Meyer, Daniel Cremers, Stefan Roth. "Motion Refined DINOSAUR for Unsupervised Multi-Object Discovery". *IEEE/CVF International Conference on Computer Vision Workshops (ICCVW)*, Honolulu, Hawai'i, Oct. 2025, to appear.

ACADEMIC SERVICE

Reviewer: ICCV (2025, Co-reviewed with Oliver Hahn)

RESEARCH EXPERIENCE

Student Research Assistant, Visual Inference Lab - TU Darmstadt Nov 2024 - present

Advisors: M.Sc. Oliver Hahn, Prof. Stefan Roth, Ph.D. Topic: Extending master's thesis to paper submission.

Master's Thesis Visual Inference Lab - T.I. Darmstadt

Master's Thesis, Visual Inference Lab - TU Darmstadt Apr 2024 - Oct 2024

Advisors: M.Sc. Oliver Hahn, Prof. Stefan Roth, Ph.D.

Topic: Refining DINOSAUR for Unsupervised Instance Segmentation

Student Research Assistant, Institute for PTW - TU Darmstadt Apr 2023 - Oct 2023

Advisors: M.Sc. Feng Zhu

Topic: Aiding process optimization in industrial production with AI methods.

Bachelor's Thesis - China University of Petroleum (East China) Feb 2020 - Jun 2020

Advisors: Prof. Dr. Cai Luo

Topic: Design of Three Degree of Freedom Underwater Manipulator System

PROFESSIONAL SKILLS

Programming: Python, MATLAB, C

Tools: PyTorch, NumPy, OpenCV, Matplotlib, Hydra, Git, LATEX, Bash, AutoCAD, Solidworks

Operating System: Linux

Languages: German - Fluent [UNIcert C1], English - Fluent [UNIcert C1], Chinese - Native

COURSE PROJECTS

Advanced Visual Computing Lab, Interactive Graphics Systems Group - Fraunhofer IGD Topic: Training and Evaluation of 3D Gaussian Splatting Model LangSplat on a Custom Dataset

Visual Computing Lab. Interactive Graphics Systems Group - Fraunhofer IGD

Topic: NCA (Neural Cellular Automata): From Inaccurate Training-Labels to High-Quality Segmentation

Deep Learning Architectures and Methods, Artificial Intelligence and Machine Learning Lab - TU Darmstadt

Topic: Predicting Instagram Like Count via CNN

PRIZES AND AWARDS

Graduation Scholarship for International Students at TU Darmstadt	2024
Outstanding Graduates of China University of Petroleum (East China) (Top 5%)	2020
"Meritorious Winner" of International Mathematical Contest In Modeling (Top 7%)	2020
University Scholarship I for Excellent Academic Achievements (Top 5%)	2019
National Scholarship for Outstanding Undergraduate (Top 0.2%)	2017