Xinrui Gong

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EDUCATION BACKGROUND

Ph.D. Student in Computer Science, Technical University of Darmstadt　　　　　Since Feb 2026
Topics: Uncovering Logic Reasoning of Neural Networks from Hardware Perspective
Advisor: Prof. Dr. Li Zhang

M.Sc. Computational Engineering, Technical University of Darmstadt　　　　　Oct 2021 - Mar 2025
Focus: Machine Learning & Deep Learning
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," in *Proc. of the Twentieth IEEE International Conference on Computer Vision Workshops*, Honolulu, Hawai'i, Oct. 2025, **Oral Presentation**.

ACADEMIC SERVICE

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

RESEARCH EXPERIENCE

Student Research Assistant, HWAI Group - TU Darmstadt　　　　　Nov 2025 - Jan 2026
Advisors: M.Sc. Oliver Hahn, Prof. Stefan Roth, Ph.D.
Topic: Early-exit neural network via input modification.

Student Research Assistant, Visual Inference Lab - TU Darmstadt　　　　　Nov 2024 - Aug 2025
Advisors: M.Sc. Oliver Hahn, Prof. Stefan Roth, Ph.D.
Topic: Extending master's thesis to paper submission.

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 approaches.

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