YIZHENG XIE

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EDUCATION

Technical University of Munich (TUM) *Munich, Germany*
M.Sc. in Informatics (Computer Science) *Oct. 2021 - present*
· Thesis under Prof. Nassir Navab (TUM) & Prof. Leonidas Guibas (Stanford): Early Research Phase on Spectral & Geometric Representation Learning
· GPA 1.3/1.0, German system, ranking top 20%

Xi'an Jiaotong University (XJTU) *Xi'an, China*
B.S. in Computer Science and Technology (Honors Youth Program) *Sep. 2014 - Jul. 2021*
· National Program for the Gifted Young (with admission rate of 4%))
· GPA 3.54/4.3, ranking top 25% out of 100

University of California, Berkeley (UCB) *Berkeley, CA*
Exchange Study in Computer Science Department *Jan. 2020 - May. 2020*
· Courses: Artificial Intelligence (A+), Database Systems(A), Structure and Interpretation of Computer Programs (A+)
· GPA 4.0/4.0, ranking top 3% out of 1000

RESEARCH INTEREST

Research Focus: Geometric Deep Learning, Spectral Shape Matching
Areas of Interest: 3D Vision, Scene Understanding, Neural Rendering, Representation Learning, Graphics

PUBLICATION

Hybrid Functional Maps for Crease-Aware Non-Isometric Shape Matching *CVPR 2024*
Lennart Bastian, **Yizheng Xie***, Nassir Navab, Zorah Lähner*
· Novel hybrid Fmap, improved geodesic error on challenging benchmarks by 15-45%
· https://hybridfmaps.github.io/

MANUSCRIPT

Beyond Complete Shapes: A Procedural Framework and Benchmark for Partial 3D Shape Matching *2025*
Viktoria Ehm, Nafie El Amrani*, **Yizheng Xie**, Lennart Bastian, Maolin Gao, Weikang Wang, Lu Sang, Dongliang Cao, Daniel Cremers, Zorah Lähner, Florian Bernard*
· Comprehensive framework, benchmark and evaluation for partial 3D shape matching
· https://arxiv.org/abs/2411.03511

EchoMatch: Partial-to-Partial Shape Matching via Correspondence Reflection *2025*
Yizheng Xie, Viktoria Ehm*, Paul Roetzer, Nafie El Amrani, Maolin Gao, Florian Bernard, Daniel Cremers*
· Novel overlap predictor, improved IoU performance on all challenging benchmarks by avg. 12%

SEMINAR

An Introductory Perspective on Functional Maps
3D Shape Matching and Applications in Computer Vision (TUM) *Aug. 2023 - Sep. 2023*
· Seminar report, beginner's intuitive explanation for functional map representation

SKILLS

Languages: Chinese (Native), English (Fluent/TOEFL 105), German (Beginner/B1)
Softwares: Python, PyTorch, Polyscope, Premiere

EXTRA-CURRICULAR

Department Lead (Video): www.tiaozhan.com *May. 2017 - May. 2019*
· Supported campus events, specialized in artistic content creation, reaching 10,000+ students