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SUMMARY

I am a second-year master student at the Interdisciplinary Research Center (IRC) of Shandong University, under the supervision of **Prof. Changhe Tu** and **Prof. Shiqing Xin**. My research interest is computer graphics, geometry, and reconstruction.

EDUCATION

- **Shandong University** 2021 - 2024 (Expected)
M.Eng in Computer Science Shandong, China
- **Shandong University** 2017 - 2021
B.Eng in Computer Science Shandong, China

AWARDS

- **ACM SIGGRAPH 2023 Technical Papers Best Paper Award**
- **2023 Shandong University Presidential Scholarship**
- **2023 National Scholarship**
- **2022 Hisense Scholarship**
- **China Undergraduate Mathematical Contest in Modeling(CUMCM) National first prize**

EXPERIENCE

- **Tencent Intern** Sep 2022 - Dec 2022
Research in Geometry Modeling. Shenzhen, China
- **Alibaba Intern** May 2020 - Sep 2020
Algorithm Engineer for Digital Twins with Unreal Development. Hangzhou, China

PUBLICATIONS

- **Globally Consistent Normal Orientation for Point Clouds by Regularizing the Winding-Number Field**
Rui Xu, Zhiyang Dou, Ningna Wang, Shiqing Xin, Shuangmin Chen, Mingyan Jiang, Xiaohu Guo, Wenping Wang, Changhe Tu
 - ACM Transactions on Graphics (SIGGRAPH 2023) [Project Page] [Code]
 - ACM SIGGRAPH 2023 Technical Papers Best Paper Award
- **RFEPS: Reconstructing Feature-line Equipped Polygonal Surface**
Rui Xu, Zixiong Wang, Zhiyang Dou, Chen Zong, Shiqing Xin, Mingyan Jiang, Tao Ju, Changhe Tu
 - ACM Transactions on Graphics (SIGGRAPH Asia 2022) [Project Page] [Code]
- **Implicit Neural Representation of Unoriented Point Clouds by Enforcing Singular Hessian**
Zixiong Wang, Yunxiao Zhang, Rui Xu, Fan Zhang, Pengshuai Wang, Shuangmin Chen, Shiqing Xin, Wenping Wang, Changhe Tu
 - ACM Transactions on Graphics (SIGGRAPH Asia 2023) [Project Page] [Code]
- **A Hessian-Based Field Deformer for Real-Time Topology-Aware Shape Editing**
Yunxiao Zhang, Zixiong Wang, Zihan Zhao, Rui Xu, Shuangmin Chen, Shiqing Xin, Wenping Wang, Changhe Tu
 - SIGGRAPH Asia 2023 Conference
- **SurfaceVoronoi: Efficiently Computing Voronoi Diagrams over Mesh Surfaces with Arbitrary Distance Solvers**
Shiqing Xin, Pengfei Wang, Rui Xu, Dongming Yan, Shuangmin Chen, Wenping Wang, Caiming Zhang, Changhe Tu*
 - ACM Transactions on Graphics (SIGGRAPH Asia 2022) [Code]
- **QuickCSGModeling: Quick CSG Operations Based on Fusing Signed Distance Fields for VR Modeling**
Shuangmin Chen, Rui Xu, Jian Xu, Shiqing Xin, Changhe Tu, Chenglei Yang, Lin Lu*
 - ACM Transactions on Multimedia Computing Communications and Applications (ToMM 2023)

•**Mesh-MLP: An all-MLP Architecture for Mesh Classification and Semantic Segmentation**

Qiujie Dong, Rui Xu, Xiaoran Gong, Zixiong Wang, Shuangmin Chen, Shiqing Xin, Changhe Tu

– International conference on Computational Visual Media (CVM) 2024 Under Review.

•**Coverage Axis: Inner Point Selection for 3D Shape Skeletonization**

Zhiyang Dou, Cheng Lin, Rui Xu, Lei Yang, Shiqing Xin, Taku Komura, Wenping Wang

– Computer Graphics Forum (Eurographics 2022) [\[Project Page\]](#) [\[Code\]](#)

•**EasyVRModeling: Easily Create 3D Models by an Immersive VR System**

Zhiying Fu, Rui Xu, Shiqing Xin, Shuangmin Chen, Changhe Tu, Chenglei Yang, Lin Lu

– ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (i3D 2022)

•**Top-Down Shape Abstraction Based on Greedy Pole Selection**

Zhiyang Dou, Shiqing Xin, Rui Xu, Jian Xu, Yuanfeng Zhou, Shuangmin Chen, Wenping Wang, Xiuyang Zhao, Changhe Tu*

– IEEE Transactions on Visualization and Computer Graphics (TVCG 2020)