

# YUEFAN SHEN

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## 🎓 EDUCATION

**Zhejiang University** Sep. 2019 - Jun. 2024

*Doctor of Philosophy(Ph.D.)*, Major in Computer Graphics, Supervised by Researcher Youyi Zheng.

**Shandong University** Sep. 2015 - Jun. 2019

*Bachelor of Engineering(B. Eng.)*, Digital Media Technology

## 🔍 RESEARCH INTERESTS

Real-time Rendering Techniques. Neural computing methods in high-fidelity 3D geometry reconstruction / modeling / generation and geometry analysis for solving challenging problems.

**Keywords:** Real-time Rendering, 3D Reconstruction and Generation, Geometry Processing, Hair Modeling.

## 🏢 EXPERIENCE

**LightSpeed Studios, Tencent, Shenzhen, CN** Jul. 2024 - Present

**Senior Researcher**

Geometry Modeling: Hair, LOD, etc. & Game Engine Research: Global Illumination, Real-time Shadow Rendering etc.

**Shanghai AI Lab, Shanghai, CN** Sep. 2023 - Jun. 2024

**Research Intern**

**Advisor: Bo Dai**

Towards 3D geometry reconstruction of large-scale scenes, I proposed to use a hybrid geometry representation which can both render and simulate.

**Meta Reality Labs, Pittsburgh, USA** Jul. 2022 - Dec. 2022

**Research Scientist Intern**

**Advisor: Giljoo Nam**

The development of digital entertainment leads to the growing demand for 3D hair models. To acquire realistic hairstyles without complex interactive designing, I proposed an automatic high-fidelity 3D hair modeling method using Computed Tomography during the internship.

**Zhejiang University, Hangzhou, CN** 2019 - 2021

**Teaching Assistant**

**Advisor: Youyi Zheng**

- C Programming

- Fundamental Data Structure

## 📄 SELECTED PUBLICATIONS

[1] **Yuefan Shen\***, Yican Dong\*, Xiufeng Huang, Zhongtian Zheng, Youyi Zheng, Kui Wu, “HairLRM: Strand-based Hair Modeling via Large Reconstruction Models,” *ACM SIGGRAPH*, 2026.

[2] Zhongtian Zheng, Tao Huang, Haozhe Su, Xueqi Ma, **Yuefan Shen**, Tongtong Wang, Yin Yang, Xifeng Gao, Zherong Pan, Kui Wu, “Auto Hair Card Extraction for Smooth Hair with Differentiable Rendering,” *ACM Trans. Graph.*, 2025.

[3] Keyu Wu, Lingchen Yang, Zhiyi Kuang, Yao Feng, **Yuefan Shen**, Hongbo Fu, Kun Zhou, Youyi Zheng, “MonoHair: High-Fidelity Hair Modeling from a Monocular Video,” *IEEE CVPR (Oral)*, 2024.

[4] **Yuefan Shen**, Shunsuke Saito, Ziyang Wang, Olivier Maury, Chenglei Wu, Jessica Hodgins, Youyi Zheng, Giljoo Nam, “CT2Hair: High-Fidelity 3D Hair Modeling using Computed Tomography,” *ACM SIGGRAPH (ACM Trans. Graph.)*, 2023.

[5] **Yuefan Shen\***, Yanchao Yang\*, Mi Yan, He Wang, Youyi Zheng, Leonidas Guibas, “Domain Adaptation on Point Clouds via Geometry-Aware Implicits,” *IEEE CVPR*, 2022.

[6] **Yuefan Shen**, Hongbo Fu, Zhongshuo Du, Xiang Chen, Evgeny Burnaev, Denis Zorin, Kun Zhou, Youyi Zheng, “GCN-Denoiser: Mesh Denoising with Graph Convolutional Networks,” *ACM Trans. Graph.*, 2022.

[7] **Yuefan Shen\***, Changgeng Zhang\*, Hongbo Fu, Kun Zhou, Youyi Zheng, “DeepSketchHair: Deep Sketch-based 3D Hair Modeling,” *IEEE Transactions on Visualization and Computer Graphics*, 2020.

## PROJECTS

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### **Interactive Hair Strands Renderer**

2022

An open-source real-time hair strands visualization tool based on OpenGL and Dear ImGui. The tool supports various hair rendering settings, including strand width, hair shadow, hair occlusion, hair transparency, etc. The tool is easy to use and can help users see hair geometry details interactively.

### **Mesh reconstruction from Noise Point Cloud**

2020

An algorithm to reconstruct meshes from noise point clouds without normal. This algorithm is a patch-based method that can predict local unsigned distance fields from points using a neural network.

## ACADEMIC SERVICES

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### **Paper Reviewer**

- ACM SIGGRAPH 2024
- ACM SIGGRAPH Aisa 2023, 2024
- IEEE CVPR 2024, 2025; IEEE ICCV 2025
- IEEE Transactions on Visualization and Computer Graphics (TVCG) 2022, 2023
- Euro Graphics 2021, 2025
- ACM Transactions on Multimedia Computing (TOMM) 2022, 2023

## HONORS AND AWARDS

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**Style3D Graduate Fellowship** (10 Ph.D. students in China)

2023

**National Scholarship** (Top 3 among 200+ Ph.D. students)

2021-2022, Zhejiang University

**The Guorui Scholarship** (Top 8 among 200+ Ph.D. students)

2019-2020, Zhejiang University

**Merit Student Award**

2019-2020, 2021-2022, Zhejiang University

**President's Scholarship of School of Software**

2015-2018, Shandong University

## SKILLS

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- Programming: Python, C++, HLSL, CUDA, JAVA, Matlab  $\LaTeX$
- Computer Graphics (OpenGL, Open3D, Blender, Houdini, Unreal Engine)
- Learning Frameworks (Pytorch, Pytorch3D, Tensorflow)
- Language: Native Mandarin, Good command of English