

SHOUCHEN ZHOU

✉ zhousc25@mails.tsinghua.edu.cn

🎓 EDUCATION

ShanghaiTech University(Undergraduate) 2021.09 – 2025.07

Major: Computer Science **GPA:** 3.91/4 **Major GPA:** 4/4 **Rank:** 1/178

Tsinghua University(Master) 2025.09 – Present

Major: Mathematics

🔬 RESEARCH EXPERIENCE

VRVC Lab Hosted by Prof. Jingyi Yu, ShanghaiTech University 2022.08 – 2025.07

We focus on utilizing mathematical theories and methods to explore the field of three-dimensional structure reconstruction. Using mathematical models. Our core work involves designing and optimizing data processing algorithms based on mathematical principles to improve the accuracy and efficiency of reconstruction.

We apply advanced mathematical tools such as optimization theory, signal processing, and numerical analysis techniques to handle and reconstruct large-scale datasets. Through these mathematical approaches, we aim to gain a deeper understanding of the spatial organization of microscopic systems, providing theoretical support for high-precision measurements and applications, while advancing the technology in related fields.

Publication:

- CryoFastAR: Fast Cryo-EM *Ab initio* Reconstruction Made Easy
Jiakai Zhang, **Shouchen Zhou**, Haizhao Dai, Xinhang Liu, Peihao Wang, Zhiwen Fan, Yuan Pei, Jingyi Yu
Accepted by ICCV(International Conference of Computer Vision) 2025. [project page](#)

Lab Hosted by Prof. Chenglong Bao, Tsinghua University 2025.09 – Present

⚙️ OTHER EXPERIENCE

Teaching Assistant for Introduction to Programming, Spring 2023 2022.02 – 2022.06

Teaching Assistant for Linear Algebra, Fall 2023 2023.09 – 2024.01

Teaching Assistant for Probability and Statistics, Spring 2024 2024.02 – 2024.07

Teaching Assistant for Algorithms and Data Structure, Fall 2024 2024.09 – 2025.01

Teaching Assistant for Introduction to Machine Learning, Spring 2025 2025.02 – 2025.06

Carry out weekly recitations, correct and explain course assignments and exams, and programming assignments.

♥️ AWARDS

Outstanding Student at ShanghaiTech University Academic Year 2021 2022.12

Outstanding Student at ShanghaiTech University Academic Year 2022 2023.12

Outstanding Student at ShanghaiTech University Academic Year 2023 2024.12

Shanghai Scholarship 2024.12

Outstanding Graduates of ShanghaiTech University 2025.06

Outstanding Graduates from Shanghai 2025.06

🛠️ PERSONAL SKILLS

- Programming Language: Python, C, C++, Matlab, L^AT_EX
- Language ability: CET-4 : 570, CET-6 : 551
- Platform: Linux(Ubuntu), Windows