

Xi Wang (王曦)

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Biography

I am a senior undergraduate student at School of Mathematical Sciences (SMS) and College of Computer Science and Software Engineering (CSSE), Shenzhen University (SZU). I am currently conducting research at Visual Computing Research Center (VCC), advised by Prof. Yang Zhou.

My research interests include [computer graphics](#), [computer vision](#), and their applications in [creative arts](#). My recent research primarily focus on [real-time rendering](#), [AIGC-aided artistic creation](#), and [the theory of diffusion models and reinforcement learning](#).

I have a strong preference for research that involves [explicit modeling](#), [solid theoretical foundations](#), and [high interpretability](#). I am not particularly fond of training a neural network as a black box, with no insight into why and how it works. Instead, I primarily focus on leveraging existing pre-trained models to conduct research that is interpretable and theoretically grounded.

Education

Shenzhen University (SZU), Shenzhen, China

2021.09 - 2025.07

- Bachelor of Science (B.S.) in Mathematics (Information and Computing Science) (GPA: 87.9 / 100 ; Ranking: 5 / 19)
- (Minor) Bachelor of Engineering (B.Eng.) in Computer Science and Technology (Total Credits: 180)

Honors and Awards (Selected)

Scholarships

- [National Scholarship of China for Undergraduates \(top 0.2% nationwide\)](#) (2023 - 2024 academic year)

Honors

- Outstanding Undergraduate Graduate of Shenzhen University (333 / 6799, top 4.90% in SZU) (2025)
- Nomination Award for Excellent Star of Shenzhen University (16 / 30, 000, [top 0.053% in SZU](#)) (2023 - 2024 academic year)

Academic Awards

- National 2nd Prize, Blue Bridge Cup Nation Software and Information Technology Professional Talent Competition, Software Development (Python B Group) (top 20% nationwide) (2025.06)
- National 2nd Prize, Blue Bridge Cup Nation Software and Information Technology Professional Talent Competition, Software Development (C/C++ B Group) (top 20% nationwide) (2024.06)
- National 1st Prize (Team) & National 3rd Prize (Individual), Group Programming Ladder Tournament of China Collegiate Computing Contest (2024.02)
- National 2nd Prize (Team), China Undergraduate Mathematical Contest in Modeling ([top 2% nationwide](#)) (2023.09)
- Silver Medal (Team), The 2023 ICPC China Shannxi National Invitational Programming Contest (2023.05)
- Bronze Medal (Team), The 2022 ICPC Asia Hefei Regional Contest (2022.11)

Academic Experience

Visual Computing Research Center (VCC), Shenzhen University, China

(2024.08 - present)

- Position: Research intern
- Supervisor: Prof. Yang Zhou
- Research Topics: The theory of diffusion models, Image synthesis and editing

Leadership (Selected)

SZUMusical Musical Club , Shenzhen University	(2024.08 - 2025.06)
Position: Vice president (Stage management)	
SZUACM ACM Algorithm Training Team , Shenzhen University	(2023.06 - 2024.09)
Position: Vice captain & Student coach	

Publications (Selected)

T: Theory; **CG**: Graphics; **2DV**: 2D Vision; **3DV**: 3D Vision

*: Equal contribution; †: Corresponding author.

1. Dynamic Importance in Diffusion U-Net for Enhanced Image Synthesis (ICME 2025, CCF B) (2024.12)
Xi Wang, Ziqi He, Yang Zhou[†]
arXiv: <https://arxiv.org/abs/2504.03471> (**2DV**)
2. Articulated Object Manipulation using Online Axis Estimation with SAM2-Based Tracking (2024.09)
Xi Wang*, Tianxing Chen*, Qiaojun Yu*, Tianling Xu, Zanxin Chen, Yiting Fu, Cewu Lu[†], Yao Mu[†], Ping Luo[†]
arXiv: <https://arxiv.org/abs/2409.16287> (**3DV**)

Portfolio (Selected)

1. “Star Dream Stage” Musical Gala, Shenzhen University (2024.11)
Positions: Assistant Director, Control Room Operator
Responsibilities: Overall coordination (costume, makeup, prop, grew), VJ (Visual Jockey) control

Skills (Selected)

- **Programming**: Python (proficient), C++ (intermediate)
- **AI Theory**: Deep Learning (intermediate), Reinforcement Learning (intermediate)
- **AI Framework**: PyTorch (proficient)
- **2D Design**: Computational Geometry (intermediate), Adobe Photoshop (intermediate), Adobe Premiere (intermediate)
- **Languages**: Mandarin (native), Cantonese (native), English (intermediate)