

Xi Wang (王曦)

Independent Researcher, B.S. in Math & B.Eng. in Computer Science, China

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Biography

I am currently an independent researcher, and closely work with Prof. Yang Zhou at Visual Computing Research Center (VCC). Before that, I received my B.S. degree in math from School of Mathematical Sciences (SMS), Shenzhen University (SZU), and B.Eng. degree in computer science from College of Computer Science and Software Engineering (CSSE), SZU.

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 don't particularly like training a neural network as a black box, with no insight into why and how it works.

I also have strong interests in [artistry](#) ([music](#), [visual arts](#)) and [occultism](#) ([mind-body-spirit](#)).

Education

Shenzhen University (SZU), Shenzhen, China

2021.09 - 2025.06

- 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)
- **Performance**: Vocal (basic)
- **Languages**: Mandarin (native), Cantonese (native), English (intermediate)