

Jiazi Bu

✉ bujiazi001@sjtu.edu.cn ☎ (+86) 139 9552 3308 🌐 Personal Homepage 📖 Google Scholar 🐙 GitHub

Education

- PhD** **Shanghai Jiao Tong University**, Computer Science and Technology Shanghai, China
 • **Advisor:** Prof. [Dahua Lin](#). Sept 2025 – Now
 • **Research Fields:** Generative Models (2D AIGC), Computer Vision.
- BEng** **Shanghai Jiao Tong University**, Artificial Intelligence ([GuoZhi Class Programme](#)) Shanghai, China
 • **GPA:** 4.04/4.3; **Average Score:** 93.10/100; **Rank:** 5/95 (**TOP 5%**). Sept 2021 – June 2025
 • **Languages:** TOEFL iBT 105 (R:29, L:27, S:23, W:26); CET4: 636; CET6: 612.
 • **Skills:** Python, C++, C, LaTeX. Familiar with *PyTorch* and *Diffusers*.
 • **Related Coursework:** Mathematical Analysis (A+), Linear Algebra (A), Data Structure (A+), Data Mining (A+), Algorithm Design and Analysis (A+), Deep Learning (A+), Computer Vision (A-), Reinforcement Learning (A+).

Experience

- Shanghai Artificial Intelligence Laboratory**, *Undergraduate & Ph.D.* Research Intern Shanghai, China
 • Research Fields: Generative Models and Large Vision-Language Models. Nov 2023 – Now
 • Mentor: [Jiaqi Wang](#), [Pan Zhang](#), [Xiaoyi Dong](#), [Yuhang Zang](#) and [Tong Wu](#).
- SJTU ReThinklab**, *Undergraduate* Research Assistant Shanghai, China
 • Research Fields: Computer Vision and AI4Science. Oct 2022 – May 2024
 • Advisor: Prof. [Junchi Yan](#).

Publications (* indicates Co-First author)

- [NeurIPS 2025] HiFlow: Training-free High-Resolution Image Generation with Flow-Aligned Guidance**
Jiazi Bu*, Pengyang Ling*, Yujie Zhou*, Pan Zhang, Tong Wu, Xiaoyi Dong, Yuhang Zang, Yuhang Cao, Dahua Lin, Jiaqi Wang
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- [CVPR 2025] ByTheWay: Boost Your Text-to-Video Generation Model to Higher Quality in a Training-free Way**
Jiazi Bu*, Pengyang Ling*, Pan Zhang, Tong Wu, Xiaoyi Dong, Yuhang Zang, Yuhang Cao, Dahua Lin, Jiaqi Wang
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- [Under Review] DiCache: Let Diffusion Model Determine Its Own Cache**
Jiazi Bu*, Pengyang Ling*, Yujie Zhou*, Yibin Wang, Yuhang Zang, Tong Wu, Dahua Lin, Jiaqi Wang
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- [ICLR 2025] MotionClone: Training-free Motion Cloning for Controllable Video Generation**
 Pengyang Ling*, **Jiazi Bu***, Pan Zhang, Xiaoyi Dong, Yuhang Zang, Tong Wu, Huaian Chen, Jiaqi Wang, Yi Jin
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- [ICCV 2025] Light-A-Video: Training-free Video Relighting via Progressive Light Fusion**
 Yujie Zhou*, **Jiazi Bu***, Pengyang Ling*, Pan Zhang, Tong Wu, Qidong Huang, Jinsong Li, Xiaoyi Dong, Yuhang Zang, Yuhang Cao, Anyi Rao, Jiaqi Wang, Li Niu
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- [Under Review] Fine-Grained GRPO for Precise Preference Alignment in Flow Models**
 Yujie Zhou*, Pengyang Ling*, **Jiazi Bu***, Yibin Wang, Yuhang Zang, Jiaqi Wang, Li Niu, Guangtao Zhai
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- [Under Review] UniGenBench++: A Unified Semantic Evaluation Benchmark for Text-to-Image Generation**
 Yibin Wang*, Zhimin Li*, Yuhang Zang*, **Jiazi Bu**, Yujie Zhou, Chunyu Wang, Qinglin Liu, Cheng Jin, Jiaqi Wang

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[Under Review] Pref-GRPO: Pairwise Preference Reward-based GRPO for Stable Text-to-Image Reinforcement Learning (& *UniGenBench* proposed in this work)

Yibin Wang*, Zhimin Li*, Yuhang Zang*, Yujie Zhou, **Jiazi Bu**, Chunyu Wang, Qinglin Liu, Cheng Jin, Jiaqi Wang

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[NeurIPS 2024] Unveiling The Matthew Effect Across Channels: Assessing Layer Width Sufficiency via Weight Norm Variance

Yiting Chen, **Jiazi Bu**, Junchi Yan

[Paper](#) / [Code](#)

[AAAI 2024] ViTree: Single-Path Neural Tree for Step-Wise Interpretable Fine-Grained Visual Categorization

Danning Lao, Qi Liu, **Jiazi Bu**, Junchi Yan, Wei Shen

[Paper](#) / [Code](#)

[SCIENCE CHINA Information Sciences] Drug-drug Interaction Prediction via Hierarchical Structure Modeling

Huaijin Wu, **Jiazi Bu**, Nianzu Yang, Yao Sun, Haitao Song, Ning Liu, Junchi Yan

[Paper](#) / [Code](#)

Projects

[arXiv 2023] MetaScript: Few-Shot Handwritten Chinese Content Generation via Generative Adversarial Networks

[Report](#) / [Code](#)

- **Jiazi Bu***, Qirui Li*, Kailing Wang*, Xiangyuan Xue*, Zhiyuan Zhang*
- Developed a novel Chinese content generation system that can specify styles based on Generative Adversarial Networks (GANs).
- Tools Used: Python, LaTeX.

DeepMovie

[Poster](#) / [Code](#)

- **Jiazi Bu***, Zhiyuan Zhang*, Xizhuo Zhang*
- Developed a plug-and-play DNN training pipeline turning most deep learning base modules into a movie recommender system.
- Tools Used: Python.

VR Pacman

[Code](#)

- Xiangyuan Xue, **Jiazi Bu**, Hanglei Zhang, Zhulin Hu, Qirui Li
- Developed a 3D first-person Pac-Man game using the Unity engine.
- Tools Used: C, C++, Unity.

Honors & Awards

Ye Jun and Shen Nanpeng Outstanding Scholarship

2025

- ¥ 20000, received as **one of the TOP 30 graduates** of SJTU.

Zhiyuan Honors Scholarship

2021, 2022, 2023, 2024

- ¥ 5000 per year, received as part of the *SJTU Zhiyuan Honors Programme*.

Guozhi Scholarship

2022

- ¥ 8000, received as being in the **TOP 15%** of SJTU AI students.

SJTU Undergraduate Scholarship

2022, 2023, 2024, 2025

CUMCM National First Prize (TOP 0.55%) & First Prize in Shanghai Chapter

2023

SJTU Zhiyuan Honor Bachelor's Degree

2025

SJTU President Award

2023

- Received for serving as a student volunteer during the COVID-19 pandemic.

SJTU Outstanding Freshman Training Camp Member	2021
SJTU Outstanding Graduate	2025
SJTU Outstanding Bachelor's Thesis of School of Computer Science	2025
SJTU Best Bachelor's Thesis (TOP 1%)	2025

Services

Academic Reviewer

- Conference Reviewer: ICLR 2026.
- Journal Reviewer: **IEEE T-PAMI**.

Volunteer

- Student Volunteer: during the COVID-19 pandemic (for **55 hours**); CUMCM 2024.