Shuzhao Xie

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Education

Tsinghua University   Shenzhen, China
Ph.D. in Computer Science   2024 – Now
- Advisor: Prof. Zhi Wang
- Research area: 3D Reconstruction and Physics-Based Simulation

Tsinghua University   Shenzhen, China
M.E. in Computer Technology   2020 – 2023
- Advisor: Prof. Zhi Wang
- Research area: Cloud Computing and Reinforcement Learning

Beijing Normal University   Beijing, China
B.S. in Computer Science and Technology   2016 – 2020

Publications & Preprints

1. **Shuzhao Xie***, Jiahang Liu*, Weixiang Zhang, Shijia Ge, Sicheng Pan, Chen Tang, Yunpeng Bai, Cong Zhang, Xiaoyi Fan, Zhi Wang. SizeGS: Size-aware Compression of 3D Gaussian Splatting via Mixed Integer Programming. *ACM International Conference on Multimedia (ACM MM)*, 2025. (*Equal Contribution)
2. **Shuzhao Xie**, Weixiang Zhang, Chen Tang, Yunpeng Bai, Rongwei Lu, Shijia Ge, Zhi Wang. MesonGS: Post-training Compression of 3D Gaussians via Efficient Attribute Transformation. *European Conference on Computer Vision (ECCV)*, 2024.
3. **Shuzhao Xie**, Yuan Xue, Yifei Zhu, Zhi Wang. SkyML: A MLaaS Federation Design for Multicloud-based Multimedia Analytics. *IEEE Transactions on Multimedia (TMM)*, 2024.
4. **Shuzhao Xie**, Yuan Xue, Yifei Zhu, Zhi Wang. Cost Effective MLaaS Federation: A Combinatorial Reinforcement Learning Approach. *IEEE Conference on Computer Communications (INFOCOM)*, 2022.
5. Xiaojie Li, Ronghui Li, Shukai Fang, **Shuzhao Xie**, Xiaoyang Guo, Jiaqing Zhou, Junkun Peng, Zhi Wang. Music-Aligned Holistic 3D Dance Generation via Hierarchical Motion Modeling. *International Conference on Computer Vision (ICCV)*, 2025.
6. Weixiang Zhang, **Shuzhao Xie**, Chengwei Ren, Shiyi Xie, Chen Tang, Shijia Ge, Mingzi Wang, Zhi Wang. EVOS: Efficient Implicit Neural Training via EVOlutionary Selector. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2025.
7. Weixiang Zhang, **Shuzhao Xie**, Chengwei Ren, Shijia Ge, Mingzi Wang, Zhi Wang. Enhancing Implicit Neural Representations via Symmetric Power Transformation. *The AAAI Conference on Artificial Intelligence (AAAI)*, 2025.
8. Yunpeng Bai, Cairong Wang, **Shuzhao Xie**, Chao Dong, Chun Yuan, Zhi Wang. TextIR: A Simple Framework for Text-based Editable Image Restoration. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2025.
9. Chen Tang, Yuan Meng, Jiacheng Jiang, **Shuzhao Xie**, Rongwei Lu, Xinzhu Ma, Zhi Wang, Wenwu Zhu. RFQuant: Retraining-free Model Quantization via One-Shot Weight-Coupling Learning. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024.
10. Weixiang Zhang, Wei Yao, **Shuzhao Xie**, Shijia Ge, Chen Tang, Zhi Wang. Expansive Supervision for Neural Radiance Field. *IEEE International Conference on Multimedia & Expo (ICME)*, 2024.
11. Shijia Ge, Weixiang Zhang, **Shuzhao Xie**, Baixu Yan, Zhi Wang. Lungmix: A Mixup-Based Strategy for Generalization in Respiratory Sound Classification. *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2025.
12. Baixu Yan, Shijia Ge, Meizi Lu, Weixiang Zhang, **Shuzhao Xie**, Zhi Wang. PulmoScan: A Practical Pulmonary Disease Pre-Screening System. *IEEE International Conference on Acoustics, Speech,*

and Signal Processing (ICASSP), 2025.

13. Jiajun Song, Jiajun Luo, Rongwei Lu, **Shuzhao Xie**, Bin Chen, Zhi Wang, Wenwu Zhu. A Joint Approach to Local Updating and Gradient Compression for Efficient Asynchronous FL. *International European Conference on Parallel and Distributed Computing (Euro-Par)*, 2024.

Preprints

1. WATER-GS: Toward Copyright Protection for 3D Gaussian Splatting via Universal Watermarking
   Yuqi Tan, Xiang Liu, <u>Shuzhao Xie</u>, Bin Chen, Shu-Tao Xia, Zhi Wang
2. DragScene: Interactive 3D Scene Editing with Single-view Drag Instructions
   Chenghao Gu, Zhenzhe Li, Zhengqi Zhang, Yunpeng Bai, <u>Shuzhao Xie</u>, Zhi Wang
3. Tuning-Free Visual Customization via View Iterative Self-Attention Control
   Xiaojie Li, Chenghao Gu, <u>Shuzhao Xie</u>, Yunpeng Bai, Weixiang Zhang, Zhi Wang

INTERNSHIPS & WORK

HealAll Tech | Shenzhen, China   2022.06 – 2024.12
- Built an online respiratory sound classification service.
- Devloped a respiratory sound classification model.

Tencent | Shanghai, China   2022.01 – 2022.06
- Analyzed data from Hupu and used TFRecord to reduce the data load latency.
- Evaluated the Faster-RCNN under PyTorch, ONNX, OpenVino, and TensorRT.

PROFESSIONAL SERVICE & TEACHING

Conference & Journal Reviewer
- CVPR: 2025
- ACM MM: 2024-2025
- ICCV: 2025
- ICASSP: 2023-2025
- IJCNN: 2025

Teaching Assistant
- Big Data System (B), Tsinghua University, Fall 2021
- Distributed Machine Learning, Tsinghua University, Fall 2024, Fall 2025

SKILLS

Programming Languages: Python, C/C++, Rust, Bash, Java
Tools and Frameworks: Git, LaTeX, PyTorch, CUDA, Docker, Spark, Android