

# YUXUAN WANG

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## EDUCATION

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**Nanyang Technological University (NTU)**, Computer Science and Engineering,  
Ph.D. Candidate Aug. 2022 - Present

Supervised by Prof. *Hanwang Zhang* in Computer Vision.

Research Topic: *3D Generation, 3D Controllable Editing, Multimodal Generation and Understanding*

**National University of Singapore (NUS)**, Electrical and Computer Engineering,  
Master of Science (GPA: 4.47/5) Aug. 2021 - Jun. 2022

Supervised by Prof. *Mike Zheng Shou* in Computer Vision.

**Beihang University**, Electronic Information Engineering,  
Bachelor of Engineering (GPA: 87.5/100) Sep. 2016 - Jun. 2020

## FIRST-AUTHOR PUBLICATIONS

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### **Personalize Your Gaussian: Consistent 3D Scene Personalization from a Single Image**

Yuxuan Wang, Xuanyu Yi, Qingshan Xu, Yuan Zhou, Long Chen, Hanwang Zhang

*AAAI Conference on Artificial Intelligence (AAAI)*, 2026

- We present Consistent Personalization for 3D Gaussian Splatting (CP-GS), a framework that progressively propagates the single-view reference appearance to novel perspectives, offering high-quality 3DGS personalization with faithful referential alignment.

### **Nautilus: Locality-aware Autoencoder for Scalable Mesh Generation**

Yuxuan Wang\*, Xuanyu Yi\*, Haohan Weng\*, Xiaokang Wei, Xianghui Yang, Chunchao Guo, Long Chen, Hanwang Zhang

*International Conference on Computer Vision (ICCV)*, 2025

- We propose Nautilus, a locality-aware autoencoder for artist-like mesh generation, which leverages the local properties of manifold meshes to achieve structural fidelity and efficient representation.

### **View-Consistent 3D Editing with Gaussian Splatting**

Yuxuan Wang, Xuanyu Yi, Zike Wu, Na Zhao, Long Chen, Hanwang Zhang

*European Conference on Computer Vision (ECCV)*, 2024

- In the diffusion model, we proposed effective multi-view consistency designs that harmonize the inconsistent multi-view image guidance by integrating with 3D Gaussian Splatting (3DGS) characteristics, offering high-quality 3DGS editing.

### **Predicate Debiasing in Vision-Language Models Integration for Scene Graph Generation**

Yuxuan Wang, Xiaoyuan Liu

*Main Conference, Empirical Methods in Natural Language Processing (EMNLP)*, 2024

- We introduced a plug-and-play debiasing method for the zero-shot VLMs, dynamically ensembling them to address the underrepresentation issue in Scene Graph Generation (SGG) models.

### **GEB+: A Benchmark for Generic Event Boundary Captioning, Grounding and Retrieval**

Yuxuan Wang, Difei Gao, Licheng Yu, Stan Weixian Lei, Matt Feiszli, Mike Zheng Shou

*European Conference on Computer Vision (ECCV)*, 2022

- We introduced three tasks of video boundary understanding on our new dataset called Kinetics-GEB+ (Generic Event Boundary Plus), consisting of over 170k boundaries associated with captions in 12K videos.
- We designed a new Temporal-based Pairwise Difference (TPD) Modeling method for visual difference representation and achieved significant performance improvements.

## CO-AUTHOR PUBLICATIONS

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**Pushing Rendering Boundaries: Hard Gaussian Splatting**

Qingshan Xu, Jiequan Cui, Xuanyu Yi, Yuxuan Wang, Yuan Zhou, Yew-Soon Ong, Hanwang Zhang  
*AAAI Conference on Artificial Intelligence (AAAI)*, 2026

**NeuSpring: Neural Spring Fields for Reconstruction and Simulation of Deformable Objects from Videos**

Qingshan Xu, Jiao Liu, Shangshu Yu, Yuxuan Wang, Yuan Zhou, Junbao Zhou, Jiequan Cui, Yew-Soon Ong, Hanwang Zhang  
*AAAI Conference on Artificial Intelligence (AAAI)*, 2026

**PBR3DGen: A VLM-guided mesh generation with high-quality PBR texture**

Xiaokang Wei, Bowen Zhang, Xianghui Yang, Yuxuan Wang, Xi Zhao, Yan Luximon  
*AAAI Conference on Artificial Intelligence (AAAI)*, 2026

**DragNeXt: Rethinking Drag-Based Image Editing**

Yuan Zhou, Junbao Zhou, Qingshan Xu, Kesen Zhao, Yuxuan Wang, Hao Fei, Richang Hong, Hanwang Zhang  
*AAAI Conference on Artificial Intelligence (AAAI)*, 2026

**Symbolic Replay: Scene Graph as Prompt for Continual Learning on VQA Task**

Stan Weixian Lei, Difei Gao, Jay Zhangjie Wu, Yuxuan Wang, Wei Liu, Mengmi Zhang, Mike Zheng Shou  
*AAAI Conference on Artificial Intelligence (AAAI)*, 2023, **Oral**

**AssistSR: Task-oriented Video Segment Retrieval for Personal AI Assistant**

Stan Weixian Lei, Difei Gao, Yuxuan Wang, Dongxing Mao, Zihan Liang, Lingmin Ran, Mike Zheng Shou  
*Findings, Empirical Methods in Natural Language Processing (EMNLP)*, 2022

## INTERNSHIP EXPERIENCE

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**Research Intern | Tencent Hunyuan**

Hunyuan 3D AIGC Center, Tencent TEG Jun. 2024

**Software Development Intern | Inspur**

AI and Big Data Platform for Health Service Jun. 2020

## RESEARCH PROJECTS

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**IMS-MLD Decoding Algorithm for Reed-Muller Code**

Senior Thesis supervised by Prof. *Qin Huang*, Beihang University Feb. 2020

**Blind Identification and Demodulation of Modulated Signals**

Supervised by Prof. *Qin Huang*, Beihang University Jul. 2018

## SKILLS

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- **Language:** Mandarin (Native), English (GRE: 331/340, TOEFL: 110/120)
- **Coding:** Python, Java, C, MATLAB, SQL
- **Music:** Piano, Guitar, Clarinet, Cavalry trumpet, Singing, Chorus Conducting