Zehuan Huang

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🎓 Education

Beihang University, Beijing, China — 2023 – Present
Master student in School of Software, advised by *Prof. Lu Sheng*, expected Jan. 2026

Beihang University, Beijing, China — 2019 – 2023
B.Eng. in School of Software, GPA 3.87/4.00 (12/176, 6%)

📕 Research Interest

My prior research focused on applying deep generative models to **3D asset creation**, encompassing the generation of 3D objects, scenes, textures, and animations. My current research interests lie in **world models and simulation**, including 1) generalizable 3D geometry foundation models, 2) interactive digital world creation, and 3) physical property simulation.

👥 Experience

1. **Research Intern @ VAST (TripoAI)** — Jan. 2024 – March 2025
   3D generation   Mentor: *Yuanchen Guo*, and *Yanpei Cao*
2. **Research Intern @ Shanghai AILab, Bo Dai's Group** — Aug. 2023 – Dec. 2023
   3D generation   Mentor: *Junting Dong*
3. **Research Intern @ MiniMax** — May 2022 – June 2023
   3D reconstruction and controllable image generation   Leader: *Bin Yang*

📄 Publications

(* denotes equal contribution)

1. **MIDI: Multi-Instance Diffusion for Single Image to 3D Scene Generation**   [Project]
   Zehuan Huang, Yuan-Chen Guo, Xingqiao An, Yunhan Yang, Yangguang Li, Zi-Xin Zou, Ding Liang, Xihui Liu, Yan-Pei Cao, Lu Sheng
   *CVPR 2025 | Github star **600+**, Online demo runs **80k+***   Adapt 3D object generation models to compositional 3D scene generation from a single image.

2. **Ouroboros3D: Image-to-3D Generation via 3D-aware Recursive Diffusion**   [Project]
   Hao Wen*, **Zehuan Huang***, Yaohui Wang, Xinyuan Chen, Yu Qiao, Lu Sheng
   CVPR 2025   Enhance 3D generation by unifying multi-view synthesis and 3D reconstruction.

3. **EpiDiff: Enhancing Multi-View Synthesis via Localized Epipolar-Constrained Diffusion** [Project]
   Zehuan Huang*, Hao Wen*, Junting Dong, Yaohui Wang, Yangguang Li, Xinyuan Chen, Yan-Pei Cao, Ding Liang, Yu Qiao, Bo Dai, Lu Sheng
   CVPR 2024   Enhancing multi-view consistency and efficiency by incorporating epipolar constraints.

4. **TELA: Text to Layer-wise 3D Clothed Human Generation**   [Project]
   Junting Dong, Qi Fang, **Zehuan Huang**, Xudong Xu, Jingbo Wang, Sida Peng, Bo Dai
   ECCV 2024   Generate cloth-disentangled 3D human from text conditions via multi-layer representation.

5. **Write An Animation: High level Text based Animation Editing with Character Scene Interaction**
   Jia Qi Zhang, Xiang Xu, Zhi Meng Shen, **Zehuan Huang**, Yang Zhao, Yan Pei Cao, Pengfei Wan, Miao Wang

PG 2021 Generate 3D scenes and character-scene animation with text prompts.

📄 PREPRINTS

(* denotes equal contribution)

1. **MV-Adapter: Multi-view Consistent Image Generation Made Easy**   [Project]

   Zehuan Huang, Yuan-Chen Guo, Haoran Wang, Ran Yi, Lizhuang Ma, Yan-Pei Cao, Lu Sheng

   *In Submission | Github star **1.3k+** (2 repos), model's total downloads **250k+*** Versatile multi-view generation with various base models and conditions, and high-quality 3D texture generation.

2. **Personalize Anything for Free with Diffusion Transformer**   [Project]

   Haoran Feng*, **Zehuan Huang***, Lin Li, Hairong Lv, Lu Sheng

   In Submission Customize any subject with advanced DiT without additional fine-tuning.

3. **Parts2Whole: Generalizable Multi-Part Portrait Customization**   [Project]

   Zehuan Huang*, Hongxing Fan*, Lipeng Wang, Lu Sheng

   In Submission Generate human images from user-specified human part images (face, pants, shoes, etc.)

🏳 HONORS AND AWARDS

Huawei Scholarship (Top 1%)	2025
China National Scholarship (Top 1%)	2024
BYD Alumni Scholarship (Top 1%)	2024
Huawei Intelligent Base Scholarship (Top 1%)	2023
Beijing Outstanding Graduate (Top 3%)	2023
Xiaomi Scholarship (Top 1%)	2022

👤 SERVICES

- Reviewer: ICLR, CVPR, ICCV, ACM MM, TCSVT
- Contributor: diffusers, the most popular repo for diffusion, and threestudio, a popular repo for 3d generation
- In-School: TA and part-time technology counselor in School of Software, Beihang University