Xianglong He

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EDUCATIONS

Shenzhen International Graduate School, Tsinghua University *2023 — 2026*
M.Eng in Computer Technology GPA 3.83 / 4
Advisor: Prof. Chun Yuan Rank 12 / 75
***Current Focus**: 3D Generation (assets, scenes, videos, etc.)*

Ocean University of China *2019 — 2023*
B.E. in Computer Science and Technology Grades 96.57 / 100
Rank 4 / 269

PUBLICATIONS

Video Generation-based World Model

- ***Matrix-Game 2.0: An Open-Source, Real-Time, and Streaming Interactive World Model***
  Xianglong He, Chunli Peng*, Zexiang Liu*, Boyang Wang*†, ..., Yang Liu‡, Eric Li‡, Yahui Zhou* **Project Page** *Tech Report*
  - a generative model for high-quality minute-level videos across diverse scenes at 25 FPS.
- ***DeepVerse: 4D Autoregressive Video Generation as a World Model***
  - a novel generalizable 4D interactive world model. *arXiv 2025*

3D Vision

- ***ShapeGen: Towards High-Quality 3D Shape Synthesis***
  Yangguang Li, **Xianglong He***, Zi-Xin Zou, Zexiang Liu, Wanli Ouyang, Ding Liang, Yan-Pei Cao*
  - a next-gen 3D shape generation diffusion model. *Siggraph Asia 2025*
- ***MeshCraft: Exploring Efficient and Controllable Mesh Generation with Flow-based DiTs***
  ***Xianglong He**, Junyi Chen, Di Huang, Zexiang Liu, Xiaoshui Huang, Wanli Ouyang, Chun Yuan†, Yangguang Li†*
  - *an efficient and controllable native mesh generation method utilizing continuous diffusion model.* *arXiv 2025*
- ***SparseFlex: High-Resolution and Arbitrary-Topology 3D Shape Modeling***
  Xianglong He, Zi-Xin Zou*, Chia-Hao Chen, Yuan-Chen Guo, Ding Liang,* **Project Page**
  Chun Yuan†, Wanli Ouyang, Yan-Pei Cao, Yangguang Li† *ICCV 2025 (Oral, 0.57%)*
  - Introduce sparse structured SparseFlex and Frustum Voxel Training Strategy for super high-resolution VAE.
- ***GVGEN: Text-to-3D Generation with Volumetric Representation***
  Xianglong He, Junyi Chen*, Sida Peng, Di Huang, Yangguang Li, Xiaoshui Huang,* **Project Page**
  Chun Yuan†, Wanli Ouyang, and Tong He† *ECCV 2024*
  - Propose 3D representation GaussianVolume, and introduce a two-stage native 3D generation methods.
- ***PonderV2: Pave the Way for 3D Foundataion Model with A Universal Pre-training Paradigm***
  - a universal 3D pre-training paradigm via differentiable rendering. *T-PAMI*
- ***NOVA3D: Normal Aligned Video Diffusion Model for Single Image to 3D Generation***
  - Image-to-3D via video generation and normal prior *ICME 2025 (Best Paper Candidate, 0.40%)*

AI Security

- ***Enhancing the Transferability via Feature-Momentum Adversarial Attack***
  ***Xianglong He**, Yuezun Li, Haipeng Qu, Junyu Dong* *Computers & Security*
  - Propose a transferable black-box attack method via the introduced feature-momentum guidance map.

Meta-learning

- ***Learn to Learn Consistently for Few-Shot Image Classification***
  - a model-agnostic meta-learning framework via self-distilling. *arXiv 2024*

SELECTED AWARDS

- **National Scholarship, Tsinghua University** *2025*
- **CCF Elite Collegiate Award, China Computer Federation** *2021*
- **First Prize** (Rank 5/2136), **National College Student Information Security Contest** *2021*
- **Second Prize, China Graduate Contest on Cyber Security** *2022*
- **Second Prize, Lanqiao Programming Designing Contest (Python, C++)** *2022, 2020*

MISC

- **Services**: Reviewer for SIGGRAPH ASIA 2025, T-CSVT, MIR.
- **Language**: Mandarin (Native); English (Fluent, CET-6: 600/710)
- **Programming**: Python, C++, LaTeX, Github ~3K Stars