

YIHUA DU

(+86)15779232826 ◇ ydu967@connect.hkust-gz.edu.cn ◇ <https://hit-perfect.github.io/>

EDUCATION

Hong Kong University of Science and Technology, Guangzhou

Sep 2025 - Present

M.Phil. student in Artificial Intelligence, advised by Prof. Ying-Cong CHEN.

Harbin Institute of Technology

Sep 2021 - Jul 2025

B.S. in Computer Science, Rank: 16/117, GPA: 3.787/4, advised by Prof. Shaohui Liu.

EXPERIENCES

Hong Kong University of Science and Technology, Guangzhou

Mar 2025 - Aug 2025

Research Assistant working on Controllable Video Generation

Meituan

Mar 2024 - Aug 2024

Research Intern working on Face Anti-Spoofing

PROJECTS

StereoPilot: Learning Unified and Efficient Stereo Conversion via Generative Priors

Mar 2025 - Present

Core Contributor

- **Efficient Stereo Video Generation:** Proposed StereoPilot, a feed-forward diffusion framework that directly synthesizes stereo views without explicit depth estimation, resolving ambiguity in reflective scenes. We constructed UniStereo, the first large-scale benchmark unifying parallel and converged formats, and designed a learnable domain switcher with cycle-consistency loss to adapt to diverse stereo geometries. This approach achieves state-of-the-art visual fidelity and significantly boosts efficiency, reducing inference latency to just 11 seconds.

VideoMemory: Toward Consistent Video Generation via Memory Integration

Sep 2025 - Present

Core Contributor

- **Multi-shot Consistent Video Generation:** Proposed VideoMemory, an entity-centric framework for multi-shot consistent video generation. It reframes long-range consistency as entity asset management, introducing a read-write Dynamic Memory Bank and a multi-agent closed loop (retrieve → generate on miss → write back) to enable cross-shot entity reuse and reduce identity drift under story-driven control. Built a 54-case multi-shot consistency benchmark spanning characters, props, and backgrounds; experiments show improved consistency and overall visual quality.

LiveGuard: Face Anti-Spoofing via Tamper and Recompression Detection

Mar 2024 - Aug 2024

Research Intern

Meituan

- **Face Anti-Spoofing Defense:** Proposed a tamper- and recompression-aware liveness defense pipeline for face-verification security, optimizing detection algorithms under real-world production constraints. We modeled the problem with a hybrid approach combining handcrafted forensic features and multimodal feature fusion, achieving a 99.99% interception rate on in-house business data. To improve generalization and deployment robustness, we developed a custom data-collection app and an end-to-end data production and labeling pipeline aligned with the online environment, curating and converting 500K+ high-quality samples for stable operation in practice. We further integrated an Image Quality Factor (QF) module to supply interpretable cues and support lightweight deployment.

PUBLICATIONS

* denotes equal contribution.

- [1] **StereoPilot: Learning Unified and Efficient Stereo Conversion via Generative Prior** *CVPR 2026 (Under Review)*
Guibao Shen*, **Yihua Du***, Wenhong Ge*, Jing He, Chirui Chang, Donghao Zhou, Zhen Yang, Luozhou Wang, Xin Tao, Ying-Cong Chen.
- [2] **VideoMemory: Toward Consistent Video Generation via Memory Integration** *CVPR 2026 (Under Review)*
Jinsong Zhou*, **Yihua Du***, Xinli Xu, Luozhou Wang, Zijie Zhuang, Yehang Zhang, Shuaibo Li, Xiaojun Hu, Bolan Su, Ying-Cong Chen.

TECHNICAL STRENGTHS

Programming Languages	Python, Java, C++, Matlab
Deep Learning Framework	Pytorch, Tensorflow

HONORS & AWARDS

National Prize, National College Students' Innovation and Entrepreneurship Program	<i>Sep 2024</i>
National Second Prize, The 6th Global Campus Artificial Intelligence Algorithm Elite Competition	<i>Nov 2024</i>
Outstanding Innovative Integrated Design Award — Harbin Institute of Technology (HIT) Undergraduate Thesis (Final-Year Project)	<i>May 2025</i>
Top 20 (Northeast China Regional Division) — The 17th National College Students' Software Innovation Competition	<i>Mar 2024</i>
Harbin Institute of Technology Outstanding Student Award	<i>2022, 2023</i>
Renmin Scholarship (Harbin Institute of Technology)	<i>2022</i>