





Shaofeng Yin

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EDUCATION

Tsinghua University

Sept. 2022 – Present

B.S. Information and Computing Science; Overall GPA: 3.946/4.0; Major GPA: 4.0/4.0

PUBLICATIONS & PREPRINTS

- [1] **Shaofeng Yin***, Jialong Wu*, Siqiao Huang, Xingjian Su, Xu He, Jianye Hao, and Mingsheng Long. Trajectory world models for heterogeneous environments, arXiv preprint, 2025.
- [2] Jialong Wu*, **Shaofeng Yin***, Ningya Feng, Xu He, Dong Li, Jianye Hao, and Mingsheng Long¹. iVideoGPT: Interactive VideoGPTs are Scalable World Models. In *Advances in Neural Information Processing Systems*, 2024.

RESEARCH EXPERIENCE

Heterogeneous Environment Modeling | Advisor: Prof. Mingsheng Long | Tsinghua University Sept.2024 – Jan.2025

- Try to answer the question: Can we **transfer dynamics knowledge from other morphologies**?
- Pre-train on a total of **1.3 million** trajectories from heterogeneous environments
- Demonstrate favorable **zero-shot generalization** to new embodiment and significant pre-training advantages on **downstream tasks** like Off-Policy evaluation.

Stiffness-Aware Dynamics Modeling | Advisor: Prof. Guanya Shi | Carnegie Mellon University July.2024 – Aug.2024

- Aim to improve **physical interaction modeling in high-stiffness regions**, which are critical for **agile robot control**.
- Achieve **stiffness-awareness** by incorporating a variance threshold into the MPC framework.
- Develop an **accurate model in stiff regions** for Go2 control.

iVideoGPT | Advisor: Prof. Mingsheng Long | Tsinghua University

Sept.2023 – June.2024

- Answer the question: How can we leverage the **advancements in scalable video generative models** for developing **interactive visual world models**?
- Achieve **step-level interactivity** via next-token prediction.
- Pre-train on a total of **1.4 million** robot manipulation trajectories.
- Develop **compressive tokenization method** to enable memory savings during training and faster rollouts during generation.

HONORS

Scholarship for Excellence in All Aspects | University Scholarship

Oct. 2023, Oct. 2024

Spark Scientific and Technological Innovation Fellowship (top 1% in university) | Fellowship

May. 2024

The First Prize of (National) Regional College Students' Physics Contest | Contest

Dec. 2023

Scholarship for Excellence in Academic Performance | University Scholarship

Oct. 2023

SKILLS

Course: Pursuing major courses in Math and CS with a 4.0/4.0 GPA, including challenging subjects like Measure Theory.

Languages: Proficient in C++, Python, and SystemVerilog. Experienced with PyTorch and JAX.

Tools: Familiar with Git/GitHub, Unix Shell

TOEFL Score: 108 (Speaking 23)

¹* indicates equal contribution.