Yunhao Fang

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EDUCATION

Zhejiang University   Hangzhou, China

B.Eng. in Electronic and Information Science, **Rank:** 1st/93, **GPA:** 3.92/4.00   Sept 2018 – Jun 2022

Summer school at University of Illinois at Urbana-Champaign

University of California, San Diego   San Diego, United States

M.S. in Computer Sciences and Engineering, **Advisor:** Prof. Hao Su   Sept 2022 – May 2024

WORK EXPERIENCES

Nvidia   Santa Clara, United States

*Research Scientist Intern, **Advisor:** Prof. Song Han, Dr. Yao Lu*   Feb 2024 – Sept 2024

 - Leading programmer of VILA, now over 1.5M model downloads on HuggingFace
 - Project: Multimodal Model Self-Evolving with Synthetic Data
 - Project: World Model Benchmark

University of California, San Diego   San Diego, United States

*Research Assistant, **Advisor:** Prof. Hao Su*   Aug 2022 – Feb 2024

 - Project: Distill Foundation Model with Out-of-Distribution Generalizability

 - Project: Large Language Model Reasoning (Exploration and Verification)

*Research Assistant, **Advisor:** Prof. Xiaolong Wang*   Sept 2024 – Nov 2024

 - Project: Learning Vision-Language-Action Models from Egocentric Human Videos

Shanghai Artificial Intelligence Laboratory   Shanghai, China

*Research Intern, **Advisor:** Prof. Dahua Lin, Dr. Jiangmiao Pang*   Nov 2021 – Jun 2022

 - Core contributor of mmtracking, an open-source codebase for object tracking
 - Project: Open-World Multiple Object Tracking

Hangzhou Humpback Whale Technology Co., Ltd   Hangzhou, China

Algorithm Engineer Intern   Sept 2020 – Dec 2020

 - Project: Design and make an RFID-based remote sensing platform

PUBLICATIONS

[1] **Fang Y***, Zhu L*, Lu Y, Wang Y, Molchanov P, Kautz J, Cho JH, Pavone M, Han S, Yin H. VILA^2: VILA Augmented VILA. arXiv preprint arXiv:2407.17453. 2024 Jul 24. Code

[2] Ling Z*****, **Fang Y***, Li X, Huang Z, Lee M, Memisevic R, Su H. Deductive verification of chain-of-thought reasoning. Advances in Neural Information Processing Systems. 2024 Code

[3] Li X*, **Fang Y***, Liu M, Ling Z, Tu Z, Su H. Distilling Large Vision-Language Model with

[Out-of-Distribution Generalizability](). InProceedings of the IEEE/CVF International Conference on Computer Vision 2023 [Code]()

[4] Xue F, Chen Y, Li D, Hu Q, Zhu L, Li X, **Fang Y**, Tang H, Yang S, Liu Z, He E. Longvila: Scaling long-context visual language models for long videos. arXiv preprint arXiv:2408.10188. 2024 Aug 19.

[5] Wu Y, Zhang Z, Chen J, Tang H, Li D, **Fang Y**, Zhu L, Xie E, Yin H, Yi L, Han S. Vila-u: a unified foundation model integrating visual understanding and generation. arXiv preprint arXiv:2409.04429. 2024 Sep 6.

[6] Ling Z, **Fang Y**, Li X, Mu T, Lee M, Pourreza R, Memisevic R, Su H. Unleashing the Creative Mind: Language Model as Hierarchical Policy For Improved Exploration on Challenging Problem Solving.

[7] Zhou Y, Gu J, Li X, Liu M, **Fang Y**, Su H. PartSLIP++: Enhancing Low-Shot 3D Part Segmentation via Multi-View Instance Segmentation and Maximum Likelihood Estimation. arXiv preprint arXiv:2312.03015. 2023 Dec 5.

[8] Li D*, **Fang Y***, Chen Y, Yang S, Cao S, Wong J, Wang X, Yin H, Gonzales E. J, Stoica I, Han S, Lu Y. WorldModelBench: Judging Video Generation Models as World Models. In submission.

INVITED TALKS

Apple AI/ML   Nov 2024
Topic: Self-Evolving Multimodal Large Models
OpenAI   Sept 2024
Topic: Closing the Loop for Self-Evolving Large Models
Nvidia   Nov 2023
Topic: Deductive Verification of Chain-of-Thought Reasoning

AWARDS & HONORS

China National Scholarship, 2022.

Mathematical Contest in Modeling: Meritorious Winner, 2022.

Rockchip Mobile Innovation Competition, 3rd place, 2022.

First-class Scholarship, Zhejiang University, 2021 & 2022.

The Honor of Merit Student, Zhejiang University, 2021 & 2022.

Huang Hong, Wu Xiaobei Scholarship (3 out of 2000), Zhejiang University, 2020.

TEACHING

Teaching Assistant: CSE 275: Deep Learning for 3D Data at UC San Diego, Fall 2023.

SERVICES

Conference Reviewer: ECCV 2024, ICLR 2024, CVPR 2024