

# Guian Fang

GENERATIVE AI · AI ALIGNMENT

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"Think Twice, Code Once."

## Education

### NUS(National University of Singapore)

PHD IN ELECTRICAL AND COMPUTER ENGINEERING

- Supervisor: **Mike Zheng Shou** (Show Lab)

Singapore

Aug. 2024 - Current

### SYSU(Sun Yat-sen University)

B.E. IN INTELLIGENT SCIENCE AND TECHNOLOGY

- Supervisor: **Xiaodan Liang** (HCP-I2 Lab SYSU)

Shenzhen, China

Sept. 2020 - Jul. 2024

## Skills

<b>Frameworks</b>	PyTorch, TensorFlow, Deepspeed, Accelerate
<b>Programming</b>	Python, C/C++, Matlab, LaTeX, Web (HTML, CSS, JavaScript)
<b>Languages</b>	Chinese (Mandarin, mother tongue), English (IELTS 6.5)
<b>DevTool</b>	Git (version control system), Linux (operating system), Docker (containerization tool), Spack (package management tool), Slurm (cluster management and job scheduling system)

## Experience

### Text to 3D World & Autonomous Agents and Multiagent Systems

RESEARCH SCIENTIST

Tau Lab | Cybever

Sept. 2023 - Jul. 2024

Remote internship, mostly works on 3D computer vision and Large language model.

#### Evaluation of text-to-video generation.

NUS | SHOW LAB

PRIMARY AUTHOR

Jun. 2023 - Nov. 2023

- Towards A Better Metric for Text-to-Video Generation

#### Multimodal LLM & Prompt engineering.

Alibaba | DAMO Academy

MAIN PARTICIPANT

Aug. 2023 - Nov. 2023

- ChartThinker: A Contextual Chain-of-Thought Approach to Optimized Chart Summarization(COLING accepted)

#### Fine-tuning large language models & Controllable image generation.

Shanghai AI Laboratory

MAIN PARTICIPANT

Jul. 2023 - Nov. 2023

- LLaMA-Adapter(5.9k stars), LLaMA2-Accessory(2.8k stars)
- Improving Compositional Text-to-image Generation with Large Vision-Language Models
- FocusDiff: Foreground Self-Decoupling Customization for Text-to-Image Generation

#### Enhancing Generative AI Models for 2D or 3D Using RLHF.

HUAWEI | NOAH'S ARK LAB

PRIMARY AUTHOR

Mar. 2023 - Nov. 2023

- RealignDiff: Boosting Text-to-Image Diffusion Model with Coarse-to-fine Semantic Re-alignment(TNNLS accepted)
- HumanRefiner: Benchmarking Abnormal Human Generation and Refining with Coarse-to-fine Pose-Reversible Guidance(ECCV accepted)

#### National Undergraduate Innovation and Entrepreneurship Training Program.

Sun Yat-sen University

PRINCIPAL INVESTIGATOR

Jun. 2021 - Mar. 2023

- Online Evidence Enhanced and Fine-Grained Fake News Detection in Long Text During the COVID-19 Pandemic.(NCAA accepted)
- Alzheimer's disease diagnosis based on multimodal data including images, voiceprints, poses and biomarkers.(under Lancet submission)
- IEEE UV 2022 Paper Publication: Wise in Vaccine Allocation

## Honors & Awards

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### COMPETITION

2021	<b>1st Place</b> , "Smart Campus" Hackathon competition	Guangzhou, China
2021	<b>3rd Place</b> , National College Students Mathematical Modeling Competition (Huashu Cup)	Tianjin, China
2022	<b>Silver Prize</b> , Intelligent Algorithm Competition of the Game Cup	Shenzhen, China
2022	<b>3rd Place</b> , 3rd National College Computer Ability Challenge	Shenzhen, China
2022	<b>2nd Place</b> , Asia and Pacific Mathematical Contest in Modeling	Beijing, China
2022	<b>Silver Medal</b> , China Collegiate Algorithm Design & Programming Challenge Contest	Shanghai, China
2022	<b>2nd Place</b> , The 2022 Social Computing Innovation Competition	Hangzhou, China
2023	<b>1st Place</b> , 4th National College Computer Ability Challenge	Shenzhen, China

### SCHOLARSHIP

2021	<b>Recipient</b> , Ethic Award scholarship	Shenzhen, China
2022	<b>Recipient</b> , Huawei Intelligent Foundation Scholarship	Shenzhen, China
2022	<b>Recipient</b> , National Encouragement scholarship	Shenzhen, China
2023	<b>1st Place</b> , SYSU Outstanding Student Scholarship (Top 5%)	Shenzhen, China
2023	<b>1st Place</b> , National Scholarship (Rank 1st)	Shenzhen, China
2023	<b>1st Place</b> , Li Xuerou Foundation Scholarship (Among the top 10 students in the college)	Shenzhen, China

## Publication

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- **Guian Fang**, Wenbiao Yan, Yuanfan Guo, Jianhua Han, Zutao Jiang, Hang Xu, Shengcai Liao, & Xiaodan Liang. (2024). HumanRefiner: Benchmarking Abnormal Human Generation and Refining with Coarse-to-fine Pose-Reversible Guidance. In European conference on computer vision. Cham: Springer Nature Switzerland, 2024
- Mengsha Liu, Daoyuan Chen, Yaliang Li, **Guian Fang**, & Ying Shen. (2024). ChartThinker: A Contextual Chain-of-Thought Approach to Optimized Chart Summarization. In Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024) (pp. 3057-3074).
- **Guian Fang**, Zutao Jiang, Jianhua Han, Guansong Lu, Hang Xu, Shengcai Liao, & Xiaodan Liang. (2023). Re-alignDiff: Boosting Text-to-Image Diffusion Model with Coarse-to-fine Semantic Re-alignment.
- Ziyang Ma, Mengsha Liu, **Guian Fang**, & Ying Shen. (2023). LTCR: Long-Text Chinese Rumor Detection Dataset.
- Baiqiao Yin, Jiaqing Yuan, Weichen Lv, Jiehui Huang, & **Guian Fang**. (2023). Wise in Vaccine Allocation. In 2022 6th International Conference on Universal Village (UV) (pp. 1-6).

## Preprints

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- Jay Zhangjie Wu, **Guian Fang**, Haoning Wu, Xintao Wang, Yixiao Ge, Xiaodong Cun, David Junhao Zhang, Jia-Wei Liu, Yuchao Gu, Rui Zhao, Weisi Lin, Wynne Hsu, Ying Shan, & Mike Zheng Shou. (2024). Towards A Better Metric for Text-to-Video Generation.
- Song Wen, **Guian Fang**, Renrui Zhang, Peng Gao, Hao Dong, & Dimitris Metaxas. (2023). Improving Compositional Text-to-image Generation with Large Vision-Language Models.
- **Guian Fang**, Mengsha Liu, Yi Zhong, Zhuolin Zhang, Jiehui Huang, Zhenchao Tang, & Calvin Yu-Chian Chen. (2023). Multimodal Identification of Alzheimer's Disease: A Review.
- Xudong Lu, Renrui Zhang, **Guian Fang**, Fu-Yun Wang, Zhaoyang Huang, Aojun Zhou, Peng Gao, & Hongsheng Li. (2024). FocusDiff: Foreground Self-Decoupling Customization for Text-to-Image Generation.