Muyang Li

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Education

Massachusetts Institute of Technology Sep. 2023 – Present
Ph.D. student at EECS, advised by Prof. Song Han Cambridge, MA

Carnegie Mellon University Aug. 2021 – May 2023
Master of Science in Robotics, advised by Prof. Jun-Yan Zhu Pittsburgh, PA

- Quality Point Average (QPA): 4.05/4.33

Shanghai Jiao Tong University Sep. 2016 – Jun. 2020
Bachelor of Engineering in Computer Science Shanghai, China

- Member of ACM Class, an elite CS program for the top 5% talented students.

Research Interests

My research interest is in the intersection of machine learning, system, and computer graphics.
I am currently working on building efficient and hardware-friendly generative models with its applications in computer vision and graphics.

Publications Google Scholar (366 Citations)

[1] **Muyang Li***, Tianle Cai*, Jiaxin Cao, Qinsheng Zhang, and Han Cai, Junjie Bai, Yangqing Jia, Ming-Yu Liu, Kai Li, and Song Han, *DistriFusion: Distributed Parallel Inference for High-Resolution Diffusion Models* (**CVPR 2024 Highlight**)

[2] Han Cai, **Muyang Li**, Zhuoyang Zhang, Qinsheng Zhang, Ming-Yu Liu, and Song Han, *Condition-Aware Neural Network for Controlled Image Generation* (**CVPR 2024**)

[3] **Muyang Li**, Ji Lin, Chenlin Meng, Stefano Ermon, Song Han and Jun-Yan Zhu, *Efficient Spatially Sparse Inference for Conditional GANs and Diffusion Models* (**NeurIPS 2022 & T-PAMI 2023**)

[4] Yihan Wang, **Muyang Li**, Han Cai, Wei-Ming Chen and Song Han, *Lite Pose: Efficient Architecture Design for 2D Human Pose Estimation* (**CVPR 2022**)

[5] **Muyang Li**, Ji Lin, Yaoyao Ding, Zhijian Liu, Jun-Yan Zhu, and Song Han, *GAN Compression: Efficient Architectures for Interactive Conditional GANs* (**CVPR 2020 & T-PAMI 2021**)

Experiences

NVIDIA May 2024 – Aug. 2024
Summer Intern Work with Prof. Song Han Santa Clara, CA

Efficient diffusion models.

NVIDIA Jun. 2023 – Aug. 2023
Summer Intern Work with Prof. Song Han and Ming-Yu Liu Shanghai, China

Distributed diffusion models **(DistriFusion, CVPR'24)** and condition-aware networks **(CAN, CVPR'24)**.

CMU Generative Intelligence Lab Aug. 2021 – Present
Master's Student Advisor: Prof. Song Han and Prof. Jun-Yan Zhu Pittsburgh, USA

Sparse image editing engine to accelerate GANs and diffusion models **(SIGE, NeurIPS'22&T-PAMI'23)**.

OmniML Inc. May 2022 – Aug. 2022
Summer Intern Work with Prof. Song Han San Jose, CA

Efficient vision model deployment on edge devices (e.g., Jetson devices and mobiles).

Dawnlight Inc. Jul. 2020 – Jul. 2021

Data Scientist Work with Prof. Song Han and Prof. Jia Li Shanghai, China

Efficient pose estimation **(Lite Pose, CVPR'22)**.

MIT HAN Lab Jul. 2019 – Jan. 2020

Research Assistant Advisor: Prof. Song Han and Prof. Jun-Yan Zhu Cambridge, MA

General conditional GANs' compression framework **(GAN Compression, CVPR'20&T-PAMI'21)**.

Open-sourced Projects

mit-han-lab/gan-compression (1.1K Stars) Jul. 2019 – Apr. 2020

Python A general conditional GAN Compression framework.

mit-han-lab/distrifuser (>500 Stars) Oct. 2023 – Feb. 2024

Python A distributed framework to accelerate diffusion models with multiple GPUs.

lmxyy/sige Jul. 2021 – Nov. 2022

Python/C++/CUDA/Metal A sparse engine to accelerate image editing for GANs and diffusion models.

mit-han-lab/litepose Mar. 2021 – Jun. 2022

Python A light-weighted pose estimation model that could run on mobile devices.

Honors and Awards

Seneff-Zue CS Fellowship ($98K) Sep. 2023
Gold Medal, Award on CCPC2017 Harbin Regional, Ranked 10th Oct. 2017
Gold Medal, Award on ICPC2017 Qingdao Regional, Ranked 5th Nov. 2017
3rd Runner-up, Award on ICPC2017 Jakarta Regional Nov. 2017
1st Runner-up, Award on Singing Competition of Zhiyuan College in SJTU Dec. 2017
Jin Long Yu Fellowship, Award for top 1% students Dec. 2017
1st Runner up's Coach, Award on ICPC 2018 Pathom Regional Nov. 2018
A-Class School-level Scholarship, Award for top 1% students Dec. 2018
Zhiyuan Honorary Scholarship (3 times), Award for top 5% students 2016, 2017, 2018
Honorable Mention, Award for 2019 American Interdisciplinary Contest in Modeling (ICM) Jan. 2019

Academic Services

- Conference Reviewer: ICML, ICLR, NeurIPS, ICCV, CVPR, SIGGRAPH Asia
- Journal Reviewer: T-PAMI, IJCV, TVCJ, TCSVT

Teaching

SJTU ACM-ICPC Coach Jun. 2018 – Apr. 2019

TA at SJTU Data Structure (CS147) Mar. 2018 – May 2018

Skills

Programming Languages: C++/C/Cuda = Python > Java
Deep Learning Packages: PyTorch, TensorFlow, TVM, TensorRT
Languages: English - Proficient, Mandarin - Native speaker, Japanese - Amateur
Other: Pop Singing