Siting Li

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Education

University of Washington Sep. 2023 – Present
Ph.D. student, advised by Prof. Simon S. Du Paul G. Allen School of Computer Science & Engineering

Tsinghua University Sep. 2019 – Jun. 2023
B.Eng in Computer Science (Yao class) Institute for Interdisciplinary Information Sciences

- Overall GPA: 3.78/4.0

Research experiences

Investigate Vision-Language Alignment in Vision-Language Models Sep. 2023 – Feb. 2025
Mentors: Prof. Simon S. Du, Prof. Pang Wei Koh (University of Washington)

- Designed and performed experiments investigating the vision-language alignment and encoder's ability in Vision-Language Models of different paradigms.

Towards Understanding Multi-modal Contrastive Learning Feb. 2022 – Jan. 2023
Mentor: Prof. Simon S. Du (University of Washington)

- Built the theoretical framework for multi-modal contrastive learning by analyzing the gradient flow dynamics. Designed and tested regularizers for improving the quality of learned representations.

Towards Understanding Multi-modal Robustness from an Information-Theoretical View Jul. 2021 – Jun. 2023
Mentor: Prof. Hang Zhao (Tsinghua University)

- Proposed an information-theoretical framework to explain the discrepancy among previous conclusions on multi-modal robustness. Designed and tested a metric and its calculating pipeline based on mutual information for evaluating modality complementarity on multi-modal datasets.
- Summary of findings available here.

Difference-in-Differences: Bridging Normalization and Disentanglement in PG-GAN Jul. 2020 – Jul. 2021
Mentor: Prof. Yang Yu (Tsinghua University)

- Conducted experiments and plotted graphs to verify the DID counterfactual framework which clarifies the mechanisms how pixel normalization causes PG-GAN entanglement.
- Summary of findings available here.

Preprints

1. Siting Li, Pang Wei Koh, Simon S. Du: Exploring How Generative MLLMs Perceive More Than CLIP with the Same Vision Encoder. In submission.

2. Siting Li, Chenzhuang Du, Yue Zhao, Yu Huang, Hang Zhao: What Makes for Robust Multi-Modal Models in the Face of Missing Modalities? CoRR abs/2310.06383 (2023)

3. Zhengqi Gao, Sucheng Ren, Zihui Xue, Siting Li, Hang Zhao: Training-Free Robust Multimodal Learning via Sample-Wise Jacobian Regularization. CoRR abs/2204.02485 (2022)

4. Xiao Liu, Jiajie Zhang, Siting Li, Zuotong Wu, Yang Yu: Difference-in-Differences: Bridging Normalization and Disentanglement in PG-GAN. CoRR abs/2010.08402 (2020)

Honors and scholarships

Paul G. Allen First-Year Graduate Student Fellowship, Univ. of Washington 2023

Volunteer Excellence Scholarship, IIIS, Tsinghua University 2022

Spark Scientific and Technological Innovation Fellowship, Tsinghua University 2021

- top 1% of 3800+ Tsinghua '23 undergraduate students for outstanding research performance

Sports Excellence Scholarship, IIIS, Tsinghua University 2021

Silver Medal (Rank 21/318) in China Collegiate Programming Contest (Regional, Harbin) 2021

Gold Medal in National Olympiad in Informatics (Invitational) 2018

First Prize in National Olympiad in Informatics in Provinces 2016,2017

Service and leadership

Prospective Student Visit Day Scheduler 2025

Ph.D. Pre-Application Mentorship Service (PAMS) Mentor 2024

Ph.D. Application Volunteer Reader 2024, 2025

Council Member of Spark Innovative Talent Cultivation Program Sept. 2021 – Jun. 2023

- Worked on the review committee of the Spark Fellowship and was an organizer of Spark Days.

Member of Beijing Volunteer Service Federation Sept. 2019 – Jun. 2023

- 118.5 hours of recorded volunteer experience

Skills

Languages : C/C++, Python, Go, Matlab, LaTeX, SQL, Verilog
Framework : Pytorch
Languages : Chinese (Native), English (TOEFL 110 (R30+L29+W28+S23); GRE 332 (V162+Q170) + AW4.0)