

Siting Li

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Education

University of Washington

Ph.D. student, advised by Prof. Simon S. Du

Sep. 2023 – Present

Paul G. Allen School of Computer Science & Engineering

Tsinghua University

B.Eng in Computer Science (Yao class)

Sep. 2019 – Jun. 2023

Institute for Interdisciplinary Information Sciences

- Overall GPA: 3.78/4.0

Research experiences

Investigate Vision-Language Alignment in Vision-Language Models

Sep. 2023 – Present

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: On Erroneous Agreements of CLIP Image Embeddings. In submission to ICLR 2025.
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, Zuo Tong 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

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 Class Committee, Yao Class 92	Sept. 2020 – Jun. 2023
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)