Xinyang Liu

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Research Interests

My primary research goal is to solve practical problems or to provide inspiration for future study and develop methods that are both accessible and effective. With this goal in mind, I am currently working on **Generative Modeling** and **Representation Learning** as well as their applications in image generation, text analysis, graph learning and transfer learning.

Specifically, I am also interested in or working in the following subjects:

- \circ Diffusion model and its application on downstream tasks.
- Prompt learning and cross-modal learning with pretrain models.
- Topic modeling.
- Graph representation learning.
- \circ Few-shot learning and domain adaption.
- Optimal theory and its application in machine learning.
- Any interesting machine learning theory that can apply to solving practical problems.

EDUCATION

Xidian University	Xi'an, China
M.S., Department of Electronic Engineering	Sep 2021 - Present
Advisor: Prof. Bo Chen	
Xidian University	Xi'an, China
B.S., Department of Electronic Engineering	Sep 2017 - Jul 2021

PROJECTS

_	PyDPM (core contributor)	
•	A python library focuses on constructing Deep Probabilistic Models (DPMs)	Sep 2022 - Present

AWARDS AND HONORS

• Bronze Medal, The 2019 ICPC Asia-East Continent Final, Xi'an	2019
• Bronze Medal, The 2019 ICPC Asia Regional Contest, Yinchuan Site	2019
• Silver Medal, The 2019 ICPC China Shaanxi Provincial Programming Contest	2019
• 1st Prize (9/325), The 17th Programming Contest of Xidian University	2019
• Scientific and Technological Progress Scholarship, Xidian University	2018

PUBLICATIONS (* denotes equal contribution)

Preprint

[1] Xinyang Liu*, Dongsheng Wang*, Miaoge Li, Zhibin Duan, Yishi Xu, Bo Chen and Mingyuan Zhou Patch-Token Aligned Bayesian Prompt Learning for Vision-Language Models arXiv preprint arXiv:2303.09100 (2023)

Conference and Journal Publications

- [2] Miaoge Li*, Dongsheng Wang*, **Xinyang Liu**, Zequn Zeng, Ruiying Lu, Bo Chen and Mingyuan Zhou PatchCT: Aligning Patch Set and Label Set with Conditional Transport for Multi-Label Image Classification
 - The IEEE/CVF International Conference on Computer Vision, (ICCV 2023)
- [3] Zhibin Duan*, Xinyang Liu*, Yudi Su, Yishi Xu, Bo Chen and Mingyuan Zhou Bayesian Progressive Deep Topic Model with Knowledge Informed Textual Data Coarsening Process

In the 40th International Conference on Machine Learning, (ICML 2023)