Fangyu Ding

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Education

Shanghai Jiao Tong University

September 2021 – March 2024 (Expected)

Master of Engineering in Computer Science

Shanghai, China

- GPA 3.70/4.0
- Member of SJTU MoE Key Lab of AI, SJTU-ReThinkLab, advised by Prof. Junchi Yan.

Shanghai Jiao Tong University

September 2017 – June 2021

Bachelor of Engineering in Computer Science and Technology

Shanghai, China

• Major GPA 88.9/100

Liaoning Province Shiyan High School

September 2014 – June 2017

Student with a Science Degree

Liaoning, China

• Provincial First Prize, Chinese Physics Olympiad (CPhO), Liaoning, China, 2016.

Publications

• Fangyu Ding, Haiyang Wang, Zhixuan Chu, Tianming Li, Junchi Yan. GSINA: Improving Graph Invariant Learning via Graph Sinkhorn Attention, (Under Review)

• Fangyu Ding, Junchi Yan, Haiyang Wang. c-NTPP: Learning Cluster-Aware Neural Temporal Point Process, (AAAI 2023) 🔗 🕠

Work Experiences

Ant Zhixin Information Technology Co., Ltd.

October 2022 - May 2023

Algorithm Engineer Intern. [cert]

Hangzhou, China

- Topics: Graph Invariant Learning and Out-of-Distribution (OOD) Generalization.
- We designed a Graph Invariant Learning (GIL) framework for Graph Neural Networks (GNNs) via invariant subgraph mining and the Optimal Transport (OT) theoretic differentiable top-k is leveraged to extract sparse, soft, and fully differentiable invariant subgraphs, which are our invariant subgraph extraction principles.
- We conducted extensive experiments on both graph-level and node-level classification benchmarks (with various distribution shifts), and our approach can outperform the GIL baselines by large margins (up to \approx 15% for graph classification and up to \approx 20% for node classification).

Alibaba Damo Technology Co., Ltd.

July 2021 - September 2021

Algorithm Engineer Intern. [cert]

Hangzhou, China

- **Topics**: Event Sequence Learning and Sequential Variational Inference.
- We designed a sequential variational autoencoder (SVAE) based deep sequential clustering method to mine the latent clusters (or subsequences) in event sequence, and neural temporal point process (NTPP) is leveraged to model the sequential data.
- A novel cluster-aware attention mechanism is proposed to improve the **Transformer** based NTPP representation learning by considering the inherent cluster property of event sequence.

Skills & Interests

Programming Languages: Python, C/C++, CUDA, SQL, Shell, Julia.

Frameworks: PyTorch, PyTorch-Geometric, Hugging Face.

Research Interests:

- Machine Learning for Graph and Sequential Data; Domain Generalization; Deep Probabilistic Models and Approximate Inference.
- Large Scale Machine Learning; Distributed Machine Learning Systems (e.g. for Large Language Models).