Yang Yongyi

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Education

School of Computer Science and Technology, Fudan University Shanghai, China
B.S. in Computer Science 2017.9 – 2022.6 (expected)

- GPA: 3.22 / 4.0
- Core Courses: Probability Theory and Mathematical Statistics, Fundamentals of Information Theory, Natural Language Processing, Pattern Recognition & Machine Learning

Publications and Manuscripts

Graph Neural Networks Inspired by Classical Iterative Algorithms
Yongyi Yang, Tang Liu, Yangkun Wang, Jinjing Zhou, Quan Gan, Zhewei Wei, Zheng Zhang, Zengfeng Huang, David Wipf.

- Published at ICML 2021 (Selected for long talk 3% acceptance rate).

Implicit vs Unfolded Graph Neural Networks
Yongyi Yang, Yangkun Wang, Zengfeng Huang, David Wipf.

- Submitted to ICLR 2022.

Why Propagate Alone? Parallel Use of Labels and Features on Graphs
Yangkun Wang, Jiarui Jin, Weinan Zhang, Yongyi Yang, Jiuhai Chen, Quan Gan, Yong Yu, Zheng Zhang, Zengfeng Huang, David Wipf.

- Submitted to ICLR 2022.

Relation of the Relations: A New Paradigm of the Relation Extraction Problem
Zhijing Jin, Yongyi Yang*, Xipeng Qiu, Zheng Zhang.*

- arxiv preprint.

Research Experience

Deeper and More Robust Graph Neural Networks 2020-2021
Advisor: Dr. David Wipf, Prof. Huang Zengfeng.

- Designed a novel way to construct GNNs through energy function unfolding, which is interpretable and exhibits robustness against oversmoothing and graph perturbation. Conducted numerous empirical experiments to verify the effectiveness of proposed model.
- Studied the relationship between implicit graph models and unfolding based models, revealing their inherent similarity and difference in aspects including convergence, expressivity and interpretability, both in theory and in practice.
- Assisted in the work on a novel method of label propagation and conducted several experiments to verify the method.

Relation Extraction 2019-2020
Advisor: Prof. Qiu Xipeng, Prof. Zhang Zheng.

- Proposed a novel way to deal with relation extraction by modeling relations and entities as graphs. Proposed two different methods to make use of inter-relation information to boost the performance of current relation extraction models and conducted several experiments to verify the proposed method.

Working Experience

Amazon Shanghai AI Lab Shanghai, China
Applied Scientist Intern 2019.10 – present

- Supervised by Dr. David Wipf, Prof. Zhang Zheng, Prof. Qiu Xipeng and Prof. Huang Zengfeng.
- Conducted a series of research works related to GNN's application in NLP and basic GNN models.

Competition Experience

Silver Medal, China Collegiate Programming Contest, Qinhuangdao Regional 2017
Silver Medal, National Olympiad in Informatics, National Finals 2016
First Prize, National Olympiad in Informatics, Sichuan Division 2015

Skills

Language: Chinese (Native), English (TOFEL iBT: 100)
Programming: Python, C/C++, Javascript