Jiyang Bai

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RESEARCH INTERESTS

• Graph and Deep Learning:

Graph Neural Network; Graph Representation Learning; Stochastic Optimization Algorithm;

• Graph Data Mining:

Graph Similarity Search; Graph Summarization; Graph Ordering;

EDUCATION

${\bf Florida\ State\ University},\ {\bf Tallahassee},\ {\bf FL},\ {\bf USA}$

Aug 2018 to May 2024

Ph.D., Computer Science

• Supervisor: Peixiang Zhao, Ph.D.

Nankai University, Tianjin, China

Sep 2014 to Jun 2018

B.S., Information and Numerical Science

Work Experiences

Graduate Research Assistant

Sep 2020 to Aug 2023

DAIS Lab, Florida State University

Tallahassee, FL

Research Intern

May 2020 to Aug 2020

Seattle Cloud Lab, Futurewei Technologies

Remote

Undergraduate Research Intern

Aug 2017 to May 2018

Bioinformatics Lab, Nankai University Tianjin, China

Conference Publications

- *: Equal Contribution
- [C1] Jiyang Bai and Peixiang Zhao. POLIGRAS: Policy-based Graph Summarization. In: Proceedings of the VLDB Endowment, Vol.17 (VLDB '2024)
- [C2] Jiyang Bai and Peixiang Zhao. TaGSim: Type-aware Graph Similarity Learning and Computation. In: Proceedings of the VLDB Endowment, Vol.15 (VLDB '2022).
- [C3] Yuxiang Ren*, Jiyang Bai* and Jiawei Zhang. Label Contrastive Coding based Graph Neural Network for Graph Classification. In: Proceedings of the 26th International Conference on Database Systems for Advanced Applications (DASFAA '2021).
- [C4] Jiyang Bai*, Yuxiang Ren* and Jiawei Zhang. Ripple Walk Training: A Subgraph-based training framework for Large and Deep Graph Neural Networks. In: Proceedings of the 2021 International Joint Conference on Neural Networks (IJCNN '2021).

- [C5] Jiyang Bai, Yuxiang Ren and Jiawei Zhang. BGADAM: Boosting based Genetic-Evolutionary ADAM for Neural Network Optimization. In: Proceedings of the 2021 International Joint Conference on Neural Networks (IJCNN '2021).
- [C6] Jiyang Bai, Yuxiang Ren and Jiawei Zhang. DEAM: Adaptive Momentum with Discriminative Weight for Stochastic Optimization. In: Proceedings of the 2020 IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM '2020).
- [C7] Lin Meng, Jiyang Bai and Jiawei Zhang. LATTE: Application Oriented Social Network Embedding. In: Proceedings of the 36th IEEE International Conference on Big Data (IEEE BigData '2019).

Journal Publications

- [J1] Jiyang Bai*, Yuxiang Ren* and Jiawei Zhang. Adaptive Momentum with Discriminative Weight for Neural Network Stochastic Optimization. *International Journal of Intelligent Systems (IJIS '2022)*.
- [J2] Jiyang Bai*, Yuxiang Ren* and Jiawei Zhang. Measuring and Sampling: A Metric-guided Subgraph Learning Framework for Graph Neural Network. *International Journal of Intelligent Systems (IJIS '2022)*.

TEACHING EXPERIENCE

Graduate Teaching Assistant

Department of Computer Science

Florida State University

Course: COP 4710 Database Systems Spring 2024

Instructor: Peixiang Zhao, Ph.D

Course: COP 5725 Advanced Database Systems Fall 2023

Instructor: Peixiang Zhao, Ph.D

Course: CGS 2060/2100 Office Spring 2020

Instructor: Gokila Dorai, Ph.D

Course: CGS 2060/2100 Office Summer 2019

Instructor: Melina Myers

Course: COP 3353-000 Introduction to UNIX Spring 2019

Instructor: David Gaitros, Ph.D

Course: COP 4710-0001 Theory and Structure of Databases Fall 2018

Instructor: Jiawei Zhang, Ph.D

Skills Computer Programming:

• Python, C/C++

Awards and Honors

- University Scholarship (College Gongneng Scholarship), Nankai University, 2015, 2016
- Meritorious Award in Mathematical Contest In Modeling of America (MCM), 2016

Professional Service

Conference Program Committee:

• ACM International Conference on Multimedia, ACM MM 2021-2024

 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, ECML-PKDD 2020

Journal Reviewer:

- World Wide Web, WWW 2024
- Machine Learning, 2024
- Cluster Computing, 2024
- International Journal of Machine Learning and Cybernetics, IJMLC 2024
- IEEE Transactions on Neural Networks and Learning Systems, TNNLS 2023
- Knowledge and Information Systems, KAIS 2023
- Pattern Recognition, 2020, 2022-2024
- Information Systems, 2021-2023
- Scientific Reports, 2023
- Multimedia Systems, 2023
- Journal of Combinatorial Optimization, JOCO 2022
- Transactions on Big Data, TBD 2022-2024
- International Journal of Intelligent Systems, IJIS 2022
- Structural Health Monitoring, SHM 2021
- IEEE Transactions on Image Processing, TIP 2020

Conference External Reviewer:

- IEEE International Conference on Data Mining, ICDM 2021-2023
- ACM International Conference on Multimedia, ACM MM 2020
- ACM International Conference on Information and Knowledge Management, CIKM 2019, 2023
- IEEE International Conference on Big Data, BigData 2019