Jiyang Bai

Contact Information

Department of Computer Science
Florida State University
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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

Florida State University, Tallahassee, FL, 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*
- 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*