

# Jiyang Bai

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## CONTACT INFORMATION

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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 Aug 2018 to present  
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 present  
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. Type-aware Graph Similarity Learning and Computation. In: *Proceedings of the VLDB Endowment*, Vol.15 (**VLDB '2022**).
- [C2] 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)*.
- [C3] **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)*.
- [C4] **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)*.

	<p>[C5] <b>Jiyang Bai</b>, Yuxiang Ren and Jiawei Zhang. DEAM: Adaptive Momentum with Discriminative Weight for Stochastic Optimization. In: <i>Proceedings of the 2020 IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM '2020)</i>.</p> <p>[C6] Lin Meng, <b>Jiyang Bai</b> and Jiawei Zhang. LATTE: Application Oriented Social Network Embedding. In: <i>Proceedings of the 36th IEEE International Conference on Big Data (IEEE BigData '2019)</i>.</p>
JOURNAL PUBLICATIONS	<p>[J1] <b>Jiyang Bai*</b>, Yuxiang Ren* and Jiawei Zhang. Adaptive Momentum with Discriminative Weight for Neural Network Stochastic Optimization. <i>International Journal of Intelligent Systems (IJIS '2022)</i>.</p> <p>[J2] <b>Jiyang Bai*</b>, Yuxiang Ren* and Jiawei Zhang. Measuring and Sampling: A Metric-guided Subgraph Learning Framework for Graph Neural Network. <i>International Journal of Intelligent Systems (IJIS '2022)</i>.</p>
PREPRINT MANUSCRIPTS	<p>[M1] <b>Jiyang Bai</b> and Peixiang Zhao. Policy-based Graph Summarization.</p>
TEACHING EXPERIENCE	<p><b>Graduate Teaching Assistant</b>  Department of Computer Science  Florida State University  Course: CGS 2060/2100 Office <span style="float: right;">Spring 2020</span>  Instructor: Gokila Dorai, Ph.D.    Course: CGS 2060/2100 Office <span style="float: right;">Summer 2019</span>  Instructor: Melina Myers    Course: COP 3353-000 Introduction to UNIX <span style="float: right;">Spring 2019</span>  Instructor: David Gaitros, Ph.D.    Course: COP 4710-0001 Theory and Structure of Databases <span style="float: right;">Fall 2018</span>  Instructor: Jiawei Zhang, Ph.D.</p>
SKILLS	<p>Computer Programming:</p> <ul style="list-style-type: none"> <li>• Python, C/C++</li> </ul>
AWARDS AND HONORS	<ul style="list-style-type: none"> <li>• University Scholarship (College Gongneng Scholarship), Nankai University, 2015, 2016</li> <li>• Meritorious Award in Mathematical Contest In Modeling of America (MCM), 2016</li> </ul>
PROFESSIONAL SERVICE	<p><b>Conference Program Committee:</b></p> <ul style="list-style-type: none"> <li>• ACM International Conference on Multimedia, <i>ACM MM 2021-2023</i></li> <li>• European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, <i>ECML-PKDD 2020</i></li> </ul> <p><b>Journal Reviewer:</b></p> <ul style="list-style-type: none"> <li>• Knowledge and Information Systems, <i>KAIS 2023</i></li> <li>• Pattern Recognition, <i>PR 2020, 2022, 2023</i></li> </ul>

- Information Systems, *IS 2021-2023*
- Scientific Reports, *SR 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, 2022*
- ACM International Conference on Multimedia, *ACM MM 2020*
- ACM International Conference on Information and Knowledge Management, *CIKM 2019*
- IEEE International Conference on Big Data, *BigData 2019*