

# Jiahang Li

<https://lspongebobjh.github.io/>

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## Education

- 2026– **University of Waterloo**, *PhD*, Computer Science, (quit due to visa issues).  
supervisor: Dr. Yang Lu
- 2022–Now **The Hong Kong Polytechnic University**, *Master*, Computer Science.
- 2018–2022 **Beijing University of Posts and Telecommunications**, *Bachelor*, Computer Science.  
GPA: 86.37/100, IELTS: 7.0

## Research interests

Algorithmic design, system design and applications of Graph Machine Learning and Large Language Models.

## Experience

- 2024–2025 **Research Assistant**, University of Madison Wisconsin, **supervisor**: Dr. Yang Lu.
1. **FDR Control for Causal Graph Learning**  
Applying Knockoff methods to control False Discovery Rate (FDR) of Causal Graph Learning.
  2. **Bioinformatics Agent powered by Dependency Graph**  
Developing an dependency graph construction pipeline for automatic building of Bioinformatics Agent.
- 2021–2022 **Software Development Engineer Intern**, Amazon Shanghai AI Lab.
1. **Deep Graph Library (DGL)**  
Implementing GNN models, graph samplers and datasets for DGL framework  
**supervisor**: Mr. Mufei Li
  2. **GNN Initialization**  
Developing a novel parameter initialization method for GNN models  
**supervisor**: Dr. Xiang Song and Dr. David Wipf  
**publication**: On the Initialization of Graph Neural Networks (first author), **ICML 2023**
  3. **Multi-table Benchmark**  
Developing graph learning solutions for multi-table database.  
**supervisor**: Mr. Quan Gan, Dr. Minjie Wang and Dr. David Wipf  
**publication**: 4DBInfer: A 4D Benchmarking Toolbox for Graph-Centric Predictive Modeling on Relational DBs. **NeurIPS 2024 D&B Track**
- 2020–2021 **Research Assistant**, GAMMA Lab in BUPT.
1. **OpenHGNN framework**  
Implementing heterogeneous GNN (hGNN) models for OpenHGNN framework  
Implementing hGNN samplers for efficient model training  
**supervisor**: Dr. Chuan Shi

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## Publications

1. **Jiahang Li**, Yakun Song, Xiang Song, David Wipf. *On the Initialization of Graph Neural Networks*. **accpeted by ICML 2023**
2. Minjie Wang, Quan Gan, David Wipf, Zhenkun Cai, Ning Li, Jianheng Tang, Yanlin Zhang, Zizhao Zhang, Zunyao Mao, Yakun Song, Yanbo Wang, **Jiahang Li**, Han Zhang, Guang Yang, Xiao Qin, Chuan Lei, Muhan Zhang, Weinan Zhang, Christos Faloutsos, Zheng Zhang. *4DBInfer: A 4D Benchmarking Toolbox for Graph-Centric Predictive Modeling on Relational DBs*. **accepted by NeurIPS 2024 D&B Track**
3. Zipei Yan, Dong Liang, Linchuan Xu, **Jiahang Li**, Zhengji Liu, Shuai Wang, Jiannong Cao, Chea-su Kee. *Vision Loss Estimation using Fundus Photograph for High Myopia*. **accpeted by MICCAI 2023**
4. Xiang Song, Runjie Ma, **Jiahang Li**, Muhan Zhang, David Wipf. *Network in Graph Neural Network*. arXiv preprint arXiv:2111.11638.
5. **Jiahang Li**, abstract *On the Generation of LLM-based Agents for Automatic and Conversational Biological Data Analysis*. **accepted by PolyU COMP - HKUST (GZ) INFH Research Student Conference**

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## Service

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| Journal reviewer    | SIAM Journal on Mathematics of Data Science (SIMODS) |
| Conference reviewer | NeurIPS 2025 Datasets and Benchmarks Track           |

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## Awards

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| 2021 | Second Prize of National English Competition for College Students    |
| 2021 | Third Prize of National Mathematics Competition for College Students |
| 2021 | Honorable Mention of MCM/ICM   |

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## Skills

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| Programming Languages | C/C++, Python, Java, Shellscript, Linux                   |
| Machine Learning      | PyTorch, Tensorflow, DGL, PyG                             |
| Distributed Training  | Ray, Horovod, PyTorch Distributed                         |
| Web Development       | HTML, CSS, Javascript, Vue.js, React.js, Django           |
| Large Language Model  | vLLM, sglang, ollama, deepspeed, llamafactor, huggingface |