

# Yilun Jin | Curriculum Vitae

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## Education

<b>Ph.D. , Dept. of CSE, HKUST</b>	<b>Hong Kong SAR</b>
○ <i>Computer Science and Engineering</i>	9.2019–5.2025
Advisor: Prof. Qiang Yang, Prof. Kai Chen.	
<b>B. S. , School of EECS, Peking University</b>	<b>Beijing, China</b>
○ <i>Computer Science, GPA: 3.7/4.0</i>	9.2015–7.2019
Advisor: Prof. Guojie Song	
Selected courses: Advanced Algebra, Mathematical Analysis, Convex Optimization, Compiler Design.	
<b>B. Economics, National School of Development, Peking University</b>	<b>Beijing, China</b>
○ <i>Economics, GPA: 3.7/4.0</i>	9.2016–7.2019
Selected courses: Intermediate Macro- & Micro-Economics, Econometrics, Financial Economics, Money and Banking, Special Topics on Reform in China	
<b>University of California, San Diego</b>	<b>La Jolla, USA</b>
○ <i>Exchange Student, GPA: 3.93/4.0</i>	9.2017–12.2017
Courses: Computer Operating System, Machine Learning, Recommender System and Web Mining	

## Experiences

<b>Amazon Stores Foundational AI</b>	<b>Palo Alto, USA</b>
○ <i>Applied Science Intern, advised by Dr. Zheng Li and Dr. Chenwei Zhang</i>	9.2023–4.2024
Research on a benchmark to evaluate LLMs on a wide-range of e-commerce-related applications. With this benchmark, we host the Amazon KDD Cup Competition 2024: Multi-task Online Shopping Challenge for LLMs.	
<b>WeBank</b>	<b>Shenzhen, China</b>
○ <i>Internship, advised by Dr. Lixin Fan</i>	6.2020–12.2020
Research on federated learning, adversarial machine learning, and machine learning privacy.	
<b>Peking University, China</b>	<b>Beijing, China</b>
○ <i>Research Assistant, advised by Prof. Guojie Song</i>	9.2018–9.2019
Research on a wide range of topics through graph representation learning, including temporal aware, community aware and memory adaptive network embeddings. Several topics on Graph Neural Networks are also involved. See <i>Publications</i> for details.	

## Publications

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(\* stands for *Equal Contribution*.)

### Conference Papers

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**Shopping MMLU: A Massive Multi-Task Online Shopping Benchmark for Large Language Models**

1. **Yilun Jin, Zheng Li, Chenwei Zhang, Tianyu Cao, Yifan Gao, Pratik Sridatt Jayarao, Mao Li, Xin Liu, Ritesh Sarkhel, Xianfeng Tang, Haodong Wang, Zhengyang Wang, Wenju Xu, Jingfeng Yang, Qingyu Yin, Xian Li, Priyanka Nigam, Yi Xu, Kai Chen, Qiang Yang, Meng Jiang, Bing Yin** 12.2024  
In the 38th Conference on Neural Information Processing Systems (NeurIPS), Datasets and Benchmarks Track, 2024.

**Transferable Graph Structure Learning for Graph-based Traffic Forecasting across Cities**

2. **Yilun Jin, Kai Chen, Qiang Yang** 8.2023  
In the 29th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2023.

**Selective Cross-city Transfer Learning for Traffic Prediction via Source City Region**

3. **Re-weighting**  
**Yilun Jin, Kai Chen, Qiang Yang** 8.2022  
In the 28th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2022.

**Theoretically Improving Graph Neural Networks via Anonymous Walk Graph Kernels**

4. **Qingqing Long\*, Yilun Jin\*, Yi Wu\*, Guojie Song** 4.2021  
In the Web Conference (TheWebConf, a.k.a. WWW), 2021.

**Graph Structural-topic Neural Network**

5. **Qingqing Long\*, Yilun Jin\*, Guojie Song, Yi Li, Wei Lin** 8.2020  
In the 26th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2020.

**EPNE: Evolutionary Pattern Preserving Network Embedding**

6. **Junshan Wang\*, Yilun Jin\*, Guojie Song, Xiaojun Ma** 6.2020  
In the 24th European Conference on Artificial Intelligence (ECAI), 2020.

**GraLSP: Graph Neural Networks with Local Structural Patterns**

7. **Yilun Jin, Guojie Song, Chuan Shi** 2.2020  
In the 34th AAAI Conference on Artificial Intelligence, 2020.

**MixNet: A Runtime Reconfigurable Optical-Electrical Fabric for Distributed Mixture-of-Experts Training**

8. **Xudong Liao, Yijun Sun, Han Tian, Xincheng Wan, Yilun Jin, Zilong Wang, Zhenghang Ren, Xinyang Huang, Wenzhe Li, Kin Fai Tse, Zhizhen Zhong, Guyue Liu, Ying Zhang, Xiaofeng Ye, Yiming Zhang, Kai Chen** 9.2025  
To appear in the ACM SIGCOMM 2025 Conference, 2025

**Exploiting Student Parallelism for Low-latency GPU Inference of BERT-like Models in Online Services**

9. **Weiyan Wang, Yilun Jin, Yiming Zhang, Victor Junqiu Wei, Han Tian, Li Chen, Jinbao Xue, Yangyu Tao, Di Wang, Kai Chen** 8.2025  
To appear in the 31st SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2025

**Achieving Fairness Generalizability for Learning-based Congestion Control with Jury**

10. *Han Tian, Xudong Liao, Decang Sun, Chaoliang Zeng, **Yilun Jin**, Junxue Zhang, Xinchen Wan, Zilong Wang, Yong Wang, Kai Chen* 3.2025  
In the European Conference on Computer Systems (EuroSys), 2025

**Efficient Decentralized Federated Singular Vector Decomposition**

11. *Di Chai, Junxue Zhang, Liu Yang, **Yilun Jin**, Leye Wang, Kai Chen, Qiang Yang* 8.2024  
In the 2024 USENIX Annual Technical Conference (ATC), 2024

**Understanding Communication Characteristics of Distributed Training**

12. *Wenxue Li, Xiangzhou Liu, Yuxuan Li, **Yilun Jin**, Han Tian, Zhizhen Zhong, Guyue Liu, Ying Zhang, Kai Chen* 6.2024  
In the 8th Asia-Pacific Workshop on Networking (APNet), 2024

**Accelerating Privacy-Preserving Machine Learning With GeniBatch**

13. *Xinyang Huang, Junxue Zhang, Xiaodian Cheng, Hong Zhang, **Yilun Jin**, Shuihai Hu, Han Tian, Kai Chen* 5.2024  
In the European Conference on Computer Systems (EuroSys), 2024.

**MDP: Model Decomposition and Parallelization of Vision Transformer for Distributed Edge Inference**

14. *Weiyan Wang, Yiming Zhang, **Yilun Jin**, Han Tian, Li Chen* 12.2023  
IEEE International Conference on Mobility, Sensing, and Networking (MSN), 2023.

**Scalable and Efficient Full-Graph GNN Training for Large Graphs**

15. *Xinchen Wan, Kaiqiang Xu, Xudong Liao, **Yilun Jin**, Kai Chen, Xin Jin* 6.2023  
In the ACM Conference on Management of Data (SIGMOD), 2023.

**GraphMSE: Efficient Meta-path Selection in Semantically Aligned Feature Space for Graph Neural Networks**

16. *Yi Li, **Yilun Jin**, Guojie Song, Chuan Shi, Zihao Zhu, Yiming Wang* 2.2021  
In the 35th AAAI Conference on Artificial Intelligence, 2021.

**Domain Adaptive Classification on Heterogeneous Information Networks**

17. *Shuwen Yang, Guojie Song, **Yilun Jin**, Lun Du* 7.2020  
In the 29th International Joint Conference on Artificial Intelligence (IJCAI-PRICAI), 2020.

**Active Domain Transfer on Network Embedding**

18. *Lichen Jin, Yizhou Zhang, Guojie Song, **Yilun Jin*** 4.2020  
In the Web Conference (TheWebConf, a.k.a. WWW), 2020.

**Hierarchical Community Structure Preserving Network Embedding: A Subspace Approach**

19. *Qingqing Long, Yiming Wang, Lun Du, Guojie Song, **Yilun Jin**, Wei Lin* 11.2019  
In the 28th ACM International Conference on Information and Knowledge Management (CIKM), 2019.

**Best Research Paper Runner-up**

20. **DANE: Domain Adaptive Network Embedding**  
*Yizhou Zhang, Guojie Song, Lun Du, Shuwen Yang, **Yilun Jin*** 8.2019  
In the 28th International Joint Conference on Artificial Intelligence (IJCAI). 2019.

**Journal Papers.....**

21. **Federated Learning without Full Labels: A Survey**  
***Yilun Jin**, Yang Liu, Kai Chen, Qiang Yang* 5.2023  
In IEEE Data Engineering Bulletin, 2023

22. **SecureBoost: A Lossless Federated Learning Framework**  
Kewei Cheng, Tao Fan, **Yilun Jin**, Yang Liu, Tianjian Chen, Qiang Yang  
In IEEE Intelligent Systems, 2021 5.2021

23. **Deep Convolutional Neural Network based Medical Concept Normalization**  
Guojie Song, Qingqing Long, Yi Luo, Yiming Wang, **Yilun Jin**  
In IEEE Transactions on Big Data, 2020 9.2020

## Technical and Personal skills

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- **Mathematics Background:** Discrete Mathematics, Advanced Algebra, Convex Optimization, Mathematical Analysis, Probability and Statistics.
- **Programming Languages:** C, C++, Python (TensorFlow, PyTorch), Java,  $\text{\LaTeX}$ , SQL
- **Language Skills:** Chinese (native speaker), English (proficient with speaking 26 in TOEFL, analytical writing 5.0 in GRE), Japanese (N2), Cantonese (beginner)
  - I take charge of writing in most of the publications listed above.
- **General Skills:** Self motivation. Work well in a team.

## Teaching

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- **Teaching Assistant**, *Practice of Programming in C++*, Peking University, Spring 2019
- **Teaching Assistant**, *COMP4631: Computer and Communication Security*, The Hong Kong University of Science and Technology, Spring 2020
- **Teaching Assistant**, *COMP5631: Cryptography and Security*, The Hong Kong University of Science and Technology, Fall 2020
- **Teaching Assistant**, *COMP6211G: Federated Learning*, The Hong Kong University of Science and Technology, Spring 2021
- **Teaching Assistant**, *COMP3511: Operating Systems*, The Hong Kong University of Science and Technology, Fall 2021, Fall 2022

## Services

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- **Main Organizer:** Amazon KDD Cup Challenge 2024.
- **Vice Local Chair:** APNet 2023.
- **Conference Program Committee Member/Reviewer:**
  - 2020: TheWebConf (Poster & Demo), ICONIP
  - 2021: AAAI, IJCAI, NeurIPS, NeurIPS Datasets and Benchmarks Track, ICONIP
  - 2022: ICLR, IJCAI, ICML, TheWebConf (Poster & Demo), NeurIPS, NeurIPS Datasets and Benchmarks Track, LoG
  - 2023: AAAI, ICLR, IJCAI, TheWebConf (Industry), KDD, ICML, ECML-PKDD, NeurIPS, NeurIPS Datasets and Benchmarks Track, LoG
  - 2024: AAAI, ICLR, SDM, TheWebConf, IJCAI, ICML, KDD, ECML-PKDD, NeurIPS, NeurIPS Datasets and Benchmarks Track
  - 2025: AAAI, ICLR, KDD, ICML
- **Journal Reviewer:** IEEE BigData, IEEE T-ITS, Neural Networks, TMLR, Information Fusion, IEEE IoTJ, IEEE TKDE.
- **Secondary Reviewer:**
  - 2020: AAAI, ACL, NeurIPS
  - 2023: SIGSPATIAL

## Awards

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- **Excellent Reviewer** (Top 20%), *ACM SIGKDD Conference*, 2025.
- **Student Travel Award**, *ACM SIGKDD Conference*, 2023.
- **2021 Best Paper Award**, *IEEE Intelligent Systems*, 2021
- **Top Reviewer**, *NeurIPS*, 2022
- **Outstanding Reviewer** (Top 10%), *ICML*, 2022
- **AAAI Student Scholarship**, *AAAI*, 2020
- **Best Research Paper Runner-up**, *CIKM Research Track*, 2019
- **Award for Research Excellence**, *Peking University*, 2018
- **Merit Student**, *Peking University*, 2017
- **Huawei Scholarship**, *Peking University*, 2017
- **Yu Minhong Scholarship for overseas exchange**, *Peking University*, 2017
- **Founder Scholarship**, *Peking University*, 2016
- **Award for Academic Excellence**, *Peking University*, 2016