

Haoyu GENG (耿 皓宇)

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Education

Shanghai Jiao Tong University (SJTU), Shanghai, China *Sep. 2016 - July. 2020*
B.S in Computer Science & Technology (IEEE Honor class)
Shanghai Jiao Tong University (SJTU), Shanghai, China *Sep. 2020 - July. 2025 (expected)*
Ph.D. in Computer Science & Technology Advisor: [Junchi Yan](#)

Interests

Graph Learning (applications: recommender systems, etc.), Combinatorial Optimization (applications: cloud scheduling, finance, etc.), Large Language Models

Publications

- [1] **Haoyu Geng**, Hang Ruan, Runzhong Wang, Yang Li, Yang Wang, Lei Chen, Junchi Yan, Rethinking and Benchmarking Predict-then-Optimize Paradigm for Combinatorial Optimization Problems, Arxiv, 2023
- [2] **Haoyu Geng**, Runzhong Wang, Fei Wu, Junchi Yan, GAL-VNE: Solving the VNE Problem with Global Reinforcement Learning and Local One-Shot Neural Prediction, *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD, CCF-A)*, 2023
- [3] **Haoyu Geng**, Chao Chen, Yixuan He, Gang Zeng, Zhaobing Han, Hua Chai, Junchi Yan, Pyramid Graph Neural Network: a Graph Sampling and Filtering Approach for Multi-scale Disentangled Representations, *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD, CCF-A)*, 2023
- [4] Chao Chen, **Haoyu Geng**, Nianzu Yang, Xiaokang Yang, Junchi Yan, EasyDGL: Encode, Train and Interpret for Continuous-time Dynamic Graph Learning, *Arxiv Preprint*, 2023
- [5] Chao Chen, **Haoyu Geng**, Gang Zeng, Zhaobing Han, Hua Chai, Xiaokang Yang, Junchi Yan Graph Signal Sampling for Inductive One-Bit Matrix Completion: a Closed-form Solution, *International Conference on Learning Representations (ICLR)* 2023
- [6] **Haoyu Geng**, Guanjie Zheng, Zhengqing Han, Hua Wei and Zhenhui Li, HMES: A Scalable Human Mobility and Epidemic Simulation System with Fast Intervention Modeling, *IEEE International Conference on Ubiquitous Intelligence and Computing (UIC)* 2022
- [7] Chao Chen, **Haoyu Geng**, Nianzu Yang, Junchi Yan, Daiyue Xue, Jianping Yu, Xiaokang Yang, Learning Self-Modulating Attention in Continuous Time Space with Applications to Sequential Recommendation, *International Conference on Machine Learning (ICML, CCF-A)*, 2021
- [8] **Haoyu Geng**, Shuodian Yu, Xiaofeng Gao, and Guihai Chen, Gated Sequential Recommendation System with Social and Textual Information under Dynamic Contexts, *International Conference on Database Systems for Advanced Applications (DASFAA, CCF-B)*, 2021

Open-source Projects

awesome-ml4co | <https://github.com/Thinklab-SJTU/awesome-ml4co> **1472 stars**
An up-to-date collection of awesome machine learning for combinatorial optimization papers.

Internships

Estimated Time of Arrival Prediction with Graph Neural Network | *Didi, Beijing* *Nov.2021 - Aug.2022*
Research Intern *Mentor: Gang Zeng (Didi)*

- I was responsible for improving the existing ETA model based on TCN (Temporal convolutional network) with graph neural networks for pick-up and drop-off services in Didi ride-hailing.
- Achieved improvement on ETA accuracy with 0.9pp.

Dynamic Multi-graph Embedding for Recommendation | *Meituan, Beijing* *April 2021 - Aug.2021*
Research Intern *Mentor: Daiyue Xue (Meituan)*

- I was responsible for developing continuous-time attention with a temporal point process and deploying self-modulating attention in the ranking system on Meituan Platform upon the baseline attention module. I achieved a 0.16% improvement on CVR with comparable model inference time (about 1.08 times) on a real industry dataset of 2.46 million training entries (ranging within one month).

