HAO WANG

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EDUCATION

Nanyang Technological University — 2017.08-2022.01
Ph.D. Mathematics advised by Associate Professor Xiaohui Bei — *Singapore*
- Dissertation: Online Matching with its Applications to Ridesharing

Tsinghua University — 2014.07-2017.06
B.E. Computer Science and Technology | GPA:90/100 — *Beijing, China*

Tsinghua University — 2013.08-2016.6
B.S.(Double Major) Economics — *Beijing, China*

Tsinghua University — 2012.07-2014.06
Electrical Engineering — *Beijing, China*

PUBLICATION

- Li Z., **Wang, H.**, Yan, Z. (2023). Fully Online Matching with Stochastic Arrivals and Departures (pdf). Proceedings of the AAAI Conference on Artificial Intelligence, 37(10), 12014-12021. (alphabetical order)

- **Wang H**, Yan Z, Bei X. (2022). A Non-asymptotic Analysis for Re-solving Heuristic in online matching (pdf). *Production and Operations Management.*

- **Wang, H.**, Bei, X. (2022). Real-Time Driver-Request Assignment in Ridesourcing (pdf). *Proceedings of the AAAI Conference on Artificial Intelligence, 36(4), 3840-3849.*

- Tu C, Zeng X, **Wang H**, et al. (2018). A Unified Framework for Community Detection and Network Representation Learning (pdf). *IEEE Transactions on Knowledge and Data Engineering, 2018, 31(6): 1051-1065.*

WORKING PAPER

- Li Z, **Wang H**, Yan Z. A Distribution-free Algorithm for Fully Online Matching with Stochastic Arrivals and Departures (pdf). Under Major Revision at *Operations Research*. (alphabetical order)

- Li Z, **Wang H**, Yan Z. Sample-Based Online Generalized Assignment Problem with Unknown Poisson Arrivals (pdf). Under review at *Management Science*. (alphabetical order)

- Li Y, Li Z, Liu L, **Wang H**, Yan Z. Online Stochastic Generalized Assignment Problem with Demand Learning (pdf, supplement). Under Review at AAAI 2024. (alphabetical order)

- **Wang H**, Yan Z, Bei X. Strategical Waiting in Dynamic Stochastic Matching with Application in Ridesourcing. Manuscript in preparation.

RESEARCH INTEREST

- Online Resource Allocation & Online Learning & Data-Driven Algorithms
- Smart City Operations & Ridesharing

RESEARCH & PROJECT EXPERIENCE

Online Resource Allocation — 2022.06-present
Research Fellow advised by Assistant Professor Zhenzhen Yan — *Nanyang Technological University*

Online Matching — 2017.08-2022.01
Ph.D. advised by Associate Professor Xiaohui Bei — *Nanyang Technological University*
- re-solving heuristic in online matching
- online matching with delays

Network Representation Learning — 2015.04-2017.01
Research Assistant advised by Associate Professor Zhiyuan Liu — *Tsinghua University*
- network representation learning by random walk and language model

Pseudo-marginal Inference Engine 2016.07-2016.08
Research Assistant advised by Associate Professor Stefano Ermon *Stanford University*

Large Scale Network Representation Learning 2016.03-2016.06
Research Intern with Wechat Group *Tencent Inc.*

Oil Detector by Gas Analasis 2014.12-2015.03
advised by Professor Chongqing Kang *Tsinghua University*
- develop an oil detector to classify different kind of oil
- won second Prize in "Challenge Cup" in Tsinghua University

Awards

- AAAI Scholarship

- Outstanding graduate of the Department of Computer Science and Technology

- Award of Academic Excellence (three times)

- First Prize in National University Students Physics Competition.

- Second Prize in "Challenge Cup" at Tsinghua University

- Pinyou Scholarship (top 5% student)

- Award of Science and Novelty

- First Prize in CPhO

Academic Services

- AAAI 2024 program committee member

- AAAI 2023 program committee member

Teaching Experience

- Probabilistic Methods in Operations Research, Teaching Assistant and Tutor, NTU SPMS, Fall 2022

- Time Series Analysis, Teaching Assistant, NTU SPMS, Spring 2021

- Probability and Introduction to Statistics, Teaching Assistant and Tutor, NTU SPMS, Fall 2020

- Statistics, Teaching Assistant and Tutor, NTU SPMS, Spring 2020

- Introduction to Data Science and Artificial Intelligence, Teaching Assistant, NTU SPMS, 2019

Technical Skills

Languages: Mandarin Chinese (native), English
Programming: Python, C/C++, JAVA/Android