

# LIN CHEN

Email: lchencu@connect.ust.hk

Department of Computer Science and Engineering  
The Hong Kong University of Science and Technology

## RESEARCH INTERESTS

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Urban Mobility, Urban Science, Large Language Model, Graph Neural Networks, Science of Science.

## EDUCATION

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**The Hong Kong University of Science and Technology, Hong Kong** *Sept. 2020 - Present*  
Ph.D. Candidate in Department of Computer Science and Engineering  
Advisor: Prof. Pan Hui

**Tongji University, Shanghai** *Sept. 2016 - Jul. 2020*  
B.S. in Department of Electronics and Information Engineering  
*Summa cum laude* (GPA: 4.86/5)

## RESEARCH EXPERIENCE

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**The Hong Kong University of Science and Technology, Hong Kong** *Sept. 2020 - Present*  
Research Assistant @ SyMLab  
Advisor: Prof. Pan Hui (Director of SyMLab)

**Tsinghua University, Beijing** *Apr. 2023 - Dec. 2023*  
Visiting Researcher @ Future Intelligence Lab (FIB)  
Advisor: Prof. Yong Li (Director of FIB)

**University of Chicago, Chicago** *Dec. 2022 - Apr. 2023*  
Visiting Researcher @ Knowledge Lab  
Advisor: Prof. James Evans (Director of Knowledge Lab)

**Feng Chia University, Taichung** *Jul. 2017*  
Summer School, Innovation for Aging in Place

## SELECTED AWARDS

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HKUST Conference Travel Grant	2024
Rising Stars Women in Engineering Workshop, Asian Deans' Forum	2023
ICWSM Student Travel Grant	2023
HKUST Overseas Research Award	2022
Hong Kong PhD Fellowship (HKPFS)	2020-2024
Shanghai Outstanding Bachelor Graduate	2020
Outstanding Student of Tongji University	2019
China National Scholarship	2019
China National Scholarship	2018
China National Scholarship	2017

## PUBLICATIONS

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- [9] **Lin Chen**, Fengli Xu, Nian Li, Zhenyu Han, Meng Wang, Yong Li, and Pan Hui. Large Language Model-driven Meta-structure Discovery in Heterogeneous Information Network. To appear in *KDD* (2024).
- [8] **Lin Chen**, Yong Li, and Pan Hui. VulnerabilityMap: An Open Framework for Mapping Vulnerability among Urban Disadvantaged Populations in the United States. To appear in *IJCAI AI for Social Good Track*. (2024)
- [7] Yunke Zhang, Fengli Xu, **Lin Chen**, Yuan Yuan, James Evans, Luis Bettencourt, and Yong Li. Counterfactual Mobility Network Embedding Reveals Prevalent Accessibility Gaps in U.S. Cities. *Humanities and Social Sciences Communications*, 11, 87. (2024)
- [6] Zhenyu Han, **Lin Chen**, Qian Yue Hao, Qiwei He, Katherine Budeski, Depeng Jin, Fengli Xu, Kun Tang, and Yong Li. How enlightened self-interest guided global vaccine sharing benefits all: a modeling study. *Journal of Global Health*, 13. (2023)
- [5] **Lin Chen**, Qian Yue Hao, Fengli Xu, Yong Li, and Pan Hui. Getting Back on Track: Understanding COVID-19 Impact on Urban Mobility and Segregation with Location Service Data. *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM)*, 17(1), 126-136. (2023)
- [4] Qian Yue Hao, Fengli Xu, **Lin Chen**, Pan Hui, and Yong Li. Hierarchical Multi-agent Model for Reinforced Medical Resource Allocation with Imperfect Information. *ACM Transactions on Intelligent Systems and Technology (TIST)*, Volume 14, Issue 1, pp 1–27. (2022)
- [3] **Lin Chen\***, Fengli Xu\*, Zhenyu Han, Kun Tang, Pan Hui, James Evans, and Yong Li. Strategic COVID-19 vaccine distribution can simultaneously elevate social utility and equity. *Nature Human Behaviour* (**IF=24.252**), Volume 6, Issue 11, pp 1503–1514. (2022)
- [2] Qian Yue Hao, Fengli Xu, **Lin Chen**, Pan Hui, and Yong Li. Hierarchical Reinforcement Learning for Scarce Medical Resource Allocation with Imperfect Information. *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery & Data Mining (SIGKDD)*, pp. 2955-2963. (2021)
- [1] Qian Yue Hao\*, **Lin Chen\***, Fengli Xu, and Yong Li. Understanding the Urban Pandemic Spreading of COVID-19 with Real World Mobility Data. *Proceedings of the 26th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (SIGKDD)*, pp. 3485-3492. (2020)

\* indicates equal contribution.

## WORKING PAPERS

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- [1] **Lin Chen**, Fengli Xu, James Evans, Yong Li, and Pan Hui. Heterogeneous Mobility Response in Complex Urban Networks. Accepted to *IC2S2'24*.

## TEACHING EXPERIENCE

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**COMP 4641: Social Information Network Analysis and Engineering @HKUST** *Spring 2021*  
Teaching Assistant; Instructor: Prof. Pan Hui

**COMP 4021: Internet Computing @HKUST** *Fall 2021*  
Teaching Assistant; Instructor: Prof. Dik-Lun Lee

## ACADEMIC SERVICE

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**Conference Reviewer:** TNSE'20, TheWebConf'22, IC2S2'22, IMWUT'22, WSDM'23  
**Journal Reviewer:** Journal of Social Computing (JSC)

## LANGUAGE

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**Chinese** (native, both Putonghua and Teochew), **English** (proficient), **Korean** (beginner)

## TALKS AND POSTERS

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[Nov 2023, Tokyo] “UrbanLens: Computational Understanding of Urban Lifestyles”, Poster & Pitch @ Rising Stars Women in Engineering Workshop, Asian Deans’ Forum (ADF-RSE’23).

[Sept 2023, Beijing] “Strategic COVID-19 vaccine distribution can simultaneously elevate social utility and equity”, Poster @ the 3rd International Forum on Big Data for Sustainable Development Goals (FBAS’23).

[Aug 2023, Beijing] “Strategic COVID-19 vaccine distribution can simultaneously elevate social utility and equity”, Poster @ the First Research Summit for Urban Science (RSUS’23).

[Jun 2023, Limassol] “Getting Back on Track: Understanding COVID-19 Impact on Urban Mobility and Segregation with Location Service Data”, Oral @ the International AAAI Conference on Web and Social Media (ICWSM’23).