

Liang “Charles” Lyu

77 Massachusetts Avenue, Cambridge, Massachusetts, United States 02139
(919) 884-1549 lianglyu@mit.edu <https://liang-charles-lyu.github.io/>

Education

Massachusetts Institute of Technology , Cambridge, MA	September 2021 – Present
Ph.D. Student – Laboratory for Information & Decision Systems (LIDS), Department of EECS	
Advisors: Prof. Asu Ozdaglar and Prof. Dan Huttenlocher	
Duke University , Durham, NC	December 2020
Bachelor of Science – Computer Science and Mathematics	GPA: 3.99 / 4.0

Research Statement

I am broadly interested in studying the impacts of algorithms on humans and society, as well as measures to mitigate the potentially undesirable consequences. My most recent work focuses on social media, more specifically the interactions between platforms, users, creators and content, the effects of platform algorithms and decisions on the behaviors of different players, and how they relate to societal issues such as the spread of misinformation. Previously, I have also worked on algorithmic fairness.

Publications

1. [“Matching of Users and Creators in Two-Sided Markets with Departures.”](#)
 - Daniel Huttenlocher, Hannah Li, **Liang Lyu**, Asuman Ozdaglar, and James Siderius.
 - **Working paper** (2023). To be submitted to *Operations Research and the 25th ACM Conference on Economics and Computation* (EC 2024).
2. “Generative AI in the Era of ‘Alternative Facts.’”
 - Saadia Gabriel, **Liang Lyu**, James Siderius, Marzyeh Ghassemi, Jacob Andreas, and Asu Ozdaglar.
 - To appear at *MIT Impact Papers on Generative AI series* (2024).
3. [“Centrality with Diversity.”](#)
 - **Liang Lyu**, Brandon Fain, Kamesh Munagala, and Kangning Wang.
 - In *Proceedings of the 14th ACM International Conference on Web Search and Data Mining (WSDM 2021)*. 644-652.
4. [“Proportionally Fair Clustering.”](#)
 - Xingyu Chen, Brandon Fain, **Liang Lyu**, and Kamesh Munagala.
 - In *Proceedings of the 36th International Conference on Machine Learning (ICML 2019)*. 1032-1041.

Other Projects

1. “Misinformation Online to Offline: A Twitter Field Study.”
 - With Daron Acemoglu, Adam Berinsky, Asuman Ozdaglar, and James Siderius.
2. “An Experiment on Algorithmic Ranking: User Behavior, Platform Incentives, and Policy.”
 - With Daniel Huttenlocher, Asuman Ozdaglar, and James Siderius.

Presentations

“Matching of Users and Creators in Two-Sided Markets with Departures.” (*Previously appeared as: “Dynamic Matching of Users and Creators on Social Media Platforms”.*)

- INFORMS Annual Meeting 2023
- Eighth Marketplace Innovation Workshop (MIW 2023)

“An Experiment on Algorithmic Ranking: User Behavior, Platform Incentives, and Policy.”

- INFORMS Annual Meeting 2022

“Centrality with Diversity.”

- 14th ACM International Conference on Web Search and Data Mining (WSDM 2021)

Teaching Experience

Undergraduate Teaching Assistant (UTA), Duke University

Spring 2018 – Fall 2020

- UTA for 4 Computer Science courses over 6 semesters
- Head UTA for CompSci 201: Data Structures & Algorithms (Fall 2018 – Fall 2020)

Honors & Awards

MathWorks Engineering Fellowship

2023 – 2024

David S. Y. Wong (1962) and Harold Wong Fellowship

2021 – 2022

Honorable Mention, CRA Outstanding Undergraduate Researchers

2020

Dean’s List, Duke University

Fall 2017 – Fall 2019

- Dean’s List with Distinction

Fall 2017 – Spring 2019

International Collegiate Programming Contest (ICPC)

2017 – 2021

- Participated in ICPC World Finals 2020
- North America Championship: 19th (2020), 33rd (2021)
- Mid-Atlantic Regionals: 4th (2017), 4th (2018), 2nd (2019), 5th (2020)