Liang "Charles" Lyu

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Education

Massachusetts Institute of Technology, Cambridge, MA

Ph.D. Student – Laboratory for Information & Decision Systems (LIDS), Department of EECS Advisors: Prof. Asu Ozdaglar and Prof. Dan Huttenlocher

Duke University, Durham, NC

Bachelor of Science - Computer Science and Mathematics

2021 - 2027 (expected)

December 2020 GPA: 3.99 / 4.0

Research Statement

I am broadly interested in the societal impacts of algorithms. My recent work, both theoretical and empirical, focuses on two key areas. First, I study how algorithmic tools such as generative AI impact human behavior. Second, I analyze online platforms and markets, particularly interactions between platforms, users, creators and content. On both ends, I am interested in strategies to mitigate the potential harms of algorithms.

Publications

- 1. "Wikipedia Contributions in the Wake of ChatGPT."
 - Liang Lyu, James Siderius, Hannah Li, Daron Acemoglu, Daniel Huttenlocher, and Asu Ozdaglar.
 - In Proceedings of the International World Wide Web Conference 2025 (WWW 2025).
- 2. "MisinfoEval: Generative AI in the Era of 'Alternative Facts."
 - Saadia Gabriel, Liang Lyu, James Siderius, Marzyeh Ghassemi, Jacob Andreas, and Asu Ozdaglar.
 - In Proceedings of the 2024 conference on Empirical Methods in Natural Language Processing (EMNLP 2024).
- 3. "Matching of Users and Creators in Two-Sided Markets with Departures."
 - Daniel Huttenlocher, Hannah Li, Liang Lyu, Asuman Ozdaglar, and James Siderius.
 - ArXiv preprint (2023). To be submitted to *Operations Research* in the future.
- 4. <u>"Centrality with Diversity."</u>
 - 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.
- 5. <u>"Proportionally Fair Clustering."</u>
 - 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

"Wikipedia Contributions in the Wake of ChatGPT."

- Tenth Marketplace Innovation Workship (MIW 2025)
- International World Wide Web Conference (WWW) 2025 (Poster Presentation)

"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 2024 & 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

Teaching Assistant, Massachusetts Institute of TechnologyFall 2024• TA for 6.1210: Introduction to Algorithms

Spring 2018 – Fall 2020

Undergraduate Teaching Assistant, Duke University

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

Honors & Awards

Ernst A. Guillemin SM Thesis Award in Electrical Engineering	2024
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: 19 th (2020), 33 rd (2021)	

• Mid-Atlantic Regionals: 4th (2017), 4th (2018), 2nd (2019), 5th (2020)