

# Xizhi Tan

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## Research Interests

My research focuses on *algorithmic game theory*, *beyond worst-case analysis*, and *mechanism design*.  
My thesis title is *Learning-Augmented Mechanism Design*

## Employment History

**Google Research** – Mountain View, CA

Jun 24 - Student Researcher in Market Algorithms; *Host: Mingfei Zhao*  
Jun- Sept 23 Research Intern in Discrete Algorithms; *Host: Greg Hutchins*

## Education

**Drexel University** – Philadelphia, PA

Jan 20- Ph.D. in Computer Science; *Advisor: Vasilis Gkatzelis*  
Sept 15- Dec 19 BSc in Mathematics

## Honors and Scholarships

2024 **Exemplary Theory Track Paper Award** for “Online Mechanism Design with Predictions”  
by the ACM Conference on Economics and Computation (EC 2024)

2024 **Werner Krandick Teaching Assistant Award**  
by Department of Computer Science, Drexel University

2023 **Finalist of 2023 Meta Research PhD Fellowship**  
by Meta

2023 **Jay Modi Memorial Award** for *academic excellence*  
by Department of Computer Science, Drexel University

2023 **PhD Research Excellence**  
by College of Computing & Informatics, Drexel University

2022 **Teaching Excellence Award (Graduate)**  
by College of Computing & Informatics, Drexel University

2019 **Robert J. Bickel Scholarship** for *outstanding academic achievements*  
by College of Arts & Science, Drexel University

2017 **Philadelphia City Council Citation** for *contributions to the AAPI community*  
by City of Philadelphia

2016 **William Avery Scholarship** for *excellent performance in freshmen year*  
by LeBow College of Business, Drexel University

2015 - 2019 **A.J. Drexel Scholarship** *supplemental financial support*  
by Drexel University

2015 - 2019 **Drexel Grant** *supplemental financial support*  
by Drexel University

## Journal Publications

2024 **Deterministic Budget Feasible Clock Auctions**  
Eric Balkanski, Pranav Garimidi, Vasilis Gkatzelis, Daniel Schoepflin, Xizhi Tan  
*Operations Research* (forthcoming)

2023 **Learning-Augmented Mechanism Design: Leveraging Predictions for Facility Location** [↗](#)  
Priyank Agrawal, Eric Balkanski, Vasilis Gkatzelis, Tingting Ou, Xizhi Tan  
*Mathematics of Operations Research* Vol. 49, No. 4

2023 **Mechanism Design with Predictions: An Annotated Reading List** [↗](#)  
Eric Balkanski, Vasilis Gkatzelis, Xizhi Tan  
*ACM SIGecom Exchanges*, 21.1, pp. 54–57

## Conference Publications

- 2025 **Multi-Platform Autobidding with and without Predictions**  
Gagan Aggarwal, Anupam Gupta, Xizhi Tan, Mingfei Zhao  
*34th ACM Web Conference (WWW 2025)*
- 2025 **Clock Auctions Augmented with Unreliable Advice**  
Vasilis Gkatzelis, Daniel Schoepflin, Xizhi Tan  
*36th ACM-SIAM Symposium on Discrete Algorithms (SODA 2025)*
- 2024 **Learning-Augmented Metric Distortion via  $(p, q)$ -Veto Core** [↗](#)  
Ben Berger, Michal Feldman, Vasilis Gkatzelis, Xizhi Tan  
*25th ACM Conference on Economics and Computation (EC 2024)*
- 2024 **Online Mechanism Design with Predictions** [↗](#)  
Eric Balkanski, Vasilis Gkatzelis, Xizhi Tan, Cherlin Zhu  
*25th ACM Conference on Economics and Computation (EC 2024)*  
(received **Exemplary Theory Track Paper Award**)
- 2024 **Getting More by Knowing Less: Bayesian Incentive Compatible Mechanisms for Fair Division** [↗](#)  
Vasilis Gkatzelis, Alexandros Psomas, Xizhi Tan, Paritosh Verma  
*33rd International Joint Conference on Artificial Intelligence, pp. 2807-2815 (IJCAI 2024)*
- 2024 **Extracting Small Subgraphs in Road Network** [↗](#)  
Sara Ahmadian, Sreenivas Gollapudi, Greg Hutchins, Kostas Kollias, Xizhi Tan  
*33rd ACM Web Conference, pp. 493-502 (WWW 2024)*
- 2023 **EFx Budget-Feasible Allocations with High Nash Welfare** [↗](#)  
Marius Garbea, Vasilis Gkatzelis, Xizhi Tan  
*26th European Conference on Artificial Intelligence, Vol. 372, pp. 795–802 (ECAI 2023)*
- 2023 **Strategyproof Scheduling with Predictions** [↗](#)  
Eric Balkanski, Vasilis Gkatzelis, Xizhi Tan  
*14th Innovations in Theoretical Comp. Sci. Conf., Vol. 251, 11:1–11:22 (ITCS 2023)*
- 2022 **Learning-Augmented Mechanism Design: Leveraging Predictions for Facility Location** [↗](#)  
Priyank Agrawal, Eric Balkanski, Vasilis Gkatzelis, Tingting Ou, Xizhi Tan  
*23rd ACM Conference on Economics and Computation, pp. 497–528 (EC 2022)*
- 2022 **Improved Price of Anarchy via Predictions** [↗](#)  
Vasilis Gkatzelis, Kostas Kollias, Alkmini Sgouritsa, Xizhi Tan  
*23rd ACM Conference on Economics and Computation, pp. 529–557 (EC 2022)*
- 2022 **Deterministic Budget Feasible Clock Auctions** [↗](#)  
Eric Balkanski, Pranav Garimidi, Vasilis Gkatzelis, Daniel Schoepflin, Xizhi Tan  
*33rd ACM-SIAM Symposium on Discrete Algorithms, pp. 2940–2963 (SODA 2022)*
- 2021 **Fair and Efficient Online Allocations with Normalized Valuations** [↗](#)  
Vasilis Gkatzelis, Alexandros Psomas, Xizhi Tan  
*35th AAAI Conference on Artificial Intelligence, pp. 5440–5447. (AAAI 2021)*

## Teaching Experience

- Fall 23 **Teaching assistant, CS 457: Data Structures and Algorithms I**
- Fall 22 **Teaching assistant, CS 521: Data Structures and Algorithms I (Graduate)**
- Fall 21 **Teaching assistant, CS 457: Data Structures and Algorithms I**
- Fall 20 **Teaching assistant, CS 457: Data Structures and Algorithms I**
- Spring 20 **Teaching assistant, CS 380: Artificial Intelligence**

## Research Visits

- Aug 22 - Sept 22 **Purdue University** – West Lafayette, IN  
Host: Alex Psomas
- July 22 - Aug 22 **Columbia University** – New York, NY  
Host: Eric Balkanski

## Talks

### Online Mechanism Design with Predictions

- Nov 24 Stanford MS&E Reading Group  
July 24 25rd ACM Conference on Economics and Computation (Award Session)

### Deterministic Budget Feasible Clock Auctions

- Aug 24 Google MTV Algorithms Reading Group

### Learning-Augmented Metric Distortion via $(p, q)$ -Veto Core

- July 24 25rd ACM Conference on Economics and Computation  
May 24 Yale FDS Student Theory Seminar

### Strategyproof Scheduling with Predictions

- July 23 Google MTV Algorithms Reading Group  
May 23 Rutgers/DIMACS Theory Seminar  
Jan 23 14th Innovations in Theoretical Computer Science

### Learning-Augmented Mechanism Design

- Aug 22 Purdue University  
July 22 23rd ACM Conference on Economics and Computation  
Apr 22 Drexel Theory Reading Group

### Improved Price of Anarchy via Predictions

- July 22 23rd ACM Conference on Economics and Computation  
May 22 Drexel Theory Reading Group

### Fair and Efficient Online Allocations with Normalized Valuations

- Feb 21 35th AAAI Conference on Artificial Intelligence

## Academic Service

**Program Committees:** 24th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2025); 39th Conference on Artificial Intelligence (AAAI 2025)

**Journal Reviewer:** Mathematics of Operations Research (MOR); Transactions on Economics and Computation (TEAC)

**Conference Reviewer/Subreviewer:** Symposium on Theory of Computing (STOC), Symposium on Discrete Algorithms (SODA), Conference on Economics and Computation (EC), Neural Information Processing Systems (NeurIPS), International Symposium on Algorithmic Game Theory (SAGT), Symposium on Mathematical Foundations of Computer Science (MFCS), International Conference on Machine Learning (ICML), AAAI Conference on Artificial Intelligence (AAAI), The Web Conference (WWW)

## Other Industry Work Experience

- Apr 19 - Step 19 **JPMorgan Chase & Co.** – Wilmington, DE  
*Digital Quality Operations Analyst*
- Sept 17 - Mar 18 **Comcast Corporation** – Philadelphia, PA  
*Assistant Product Manager*
- May 17 - Aug 17 **City Council of Philadelphia** – Philadelphia, PA  
*Asian Outreach Intern*
- Step 16 - Mar 17 **Your Part-time Controller LLC** – Philadelphia, PA  
*Data Visualization Analyst*