

# Hossein Nekouyan Jazi

[hossein-nekouyan.github.io](https://hossein-nekouyan.github.io)

Edmonton, AB, Canada  
✉ nekouyan@ualberta.ca

## Summary

Recent M.Sc. graduate in Computer Science from the **University of Alberta**; supervised by Dr. Xiaoqi Tan. Currently a **full-time Research Assistant** in the Department of Computing Science at UAlberta, working with Dr. Tan and Dr. Bo Sun. Publications include work appearing at **WWW**, **WINE**, **NeurIPS**, and **ACM SIGMETRICS**. Actively seeking **Ph.D.** positions.

## Research Interests

- Decision making under uncertainty
- Computational Economics
- Algorithmic game theory and mechanism design
- Combinatorial optimization and polyhedral methods

## Education

Jan 2023–	<b>M.Sc., Computer Science</b> , University of Alberta, Edmonton, Canada, GPA: 3.9/4.0
Mar 2025	<b>Thesis: Randomized Posted Pricing and Rounding Schemes for Online Selection and Matching</b> (Nominated for best thesis award (TBA)) Supervisor: Dr. Xiaoqi Tan <i>Coursework:</i> Theoretical Foundations of Reinforcement Learning; Approximation Algorithms; Randomized Algorithms; Optimization and Decision-Making under Uncertainty
Sep 2018–	<b>B.Sc., Computer Science</b> , University of Tehran, Tehran, Iran, GPA: 18.41/20.0
Jul 2022	<i>Coursework:</i> Graph Theory and Applications; Number Theory; Algebra I; Linear Algebra; Strategic Games I; Fundamentals of Logic; Design and Analysis of Algorithms; Statistical Methods; Theory of Computation; Introduction to Bioinformatics; Differential Equations

## Publications

### Preprints

- 2025 **Posted Pricing for Online Selection: Limited Price Changes and Risk Sensitivity.**  
*Under Review.*  
**Hossein Nekouyan Jazi**, Bo Sun, Xiaoqi Tan.
- 2025 **Online Rounding Schemes for  $k$ -Rental Problems.**  
*Under Review.*  
**Hossein Nekouyan Jazi**, Bo Sun, Raouf Boutaba, Xiaoqi Tan.

### Per-reviewed Conference Publications

- 2025 **Online Multi-Class Selection with Group Fairness Guarantee.**  
*NeurIPS 2025.*  
Faraz Zargari, **Hossein Nekouyan Jazi**, Bo Sun, Xiaoqi Tan.
- 2025 **Online Allocation with Multi-Class Arrivals: Group Fairness vs. Individual Welfare.**  
*ACM SIGMETRICS 2025.*  
Faraz Zargari, **Hossein Nekouyan Jazi**, Bo Sun, Xiaoqi Tan.

- 2025 **Posted Price Mechanisms for Online Allocation with Diseconomies of Scale.**  
*The Web Conference (WWW 2025).*  
**Hossein Nekouyan Jazi**, Bo Sun, Raouf Boutaba, Xiaoqi Tan.
- 2024 **Static Pricing for Online Selection Problem and Its Variants.**  
*International Conference on Web and Internet Economics (WINE 2024).*  
Bo Sun, **Hossein Nekouyan Jazi**, Xiaoqi Tan, Raouf Boutaba.
- 2024 **Online Conversion with Group Fairness Constraints.**  
*ACM SIGMETRICS Performance Evaluation Review.*  
**Hossein Nekouyan Jazi**, Faraz Zargari, Bo Sun, Xiaoqi Tan.

## Working Projects

The Max  $k$ -Colorable Subgraph Problem on Unit Disk and Comparability Graphs

## References

- Dr. Xiaoqi Tan** — Assistant Professor, Department of Computing Science, University of Alberta  
<https://xiaoqitan.org/>
- Dr. Zachary Friggstad** — Associate Professor, Department of Computing Science, University of Alberta  
<https://friggstad.github.io/>
- Dr. Bo Sun** — Assistant Professor, School of Electrical Engineering and Computer Science, University of Ottawa  
<https://sunbo-online.github.io/>

## Research Experience

- Apr 2025– Present **Full-time Research Assistant**, Alberta Machine Intelligence Institute (Amii), University of Alberta, Edmonton, Canada  
Supervisor: Dr. Xiaoqi Tan
- Jan 2023– Jan 2025 **Graduate Research Fellowship**, University of Alberta, Edmonton, Canada  
Supervisor: Dr. Xiaoqi Tan

## Teaching Experience

- Jan 2023– **Graduate Teaching Assistant**, University of Alberta, Edmonton, Canada
- Apr 2025 Algorithm I (four terms) and Algorithm II (one term): teaching, tutorials, marking, student support.
- Dec 2019– **Teaching Assistant**, University of Tehran, Tehran, Iran
- Apr 2022 Courses: Advanced Programming; Data Structures and Algorithms; Design and Analysis of Algorithms; Graph Theory; Introduction to Bioinformatics.

## Skills

- |             |  |
|-------------|--|
| Programming | Python, Gurobi, C++, Java, L <sup>A</sup> T <sub>E</sub> X |
| Tools       | Git, Linux, Overleaf, Jupyter, VS Code                     |
| Languages   | English (fluent), Persian (native)                         |