

Shangyuan (Peter) Yang

Madison, WI | syang589@wisc.edu | (908)-992-9653 | syang589.github.io/peter/

Education

Ph.D. in Computer Sciences, University of Wisconsin–Madison

1st Year

- Advisor: Prof. Kirthevasan Kandasamy
- Field of Study: Theoretical Computer Science / Machine Learning Theory
- Courses: ML Theory, Complexity Theory, Learning Theory
- GPA: 4.0

B.S. in Computer Science and Data Science, University of Wisconsin–Madison

Class of 2025

- Courses: Advanced Algorithms, Game Theory, Integer Optimization, Theory of Computing
- GPA: 3.919

Research Experience

Pairwise Exchanges of Freely Replicable Goods with Negative Externalities

May 2024 - Present

- Advised by Prof. Kirthevasan Kandasamy at University of Wisconsin–Madison
- Studied exchange of freely replicable goods under competition-induced negative externalities
- Designed a mechanism for pairwise exchange with provable incentive and efficiency guarantees
- Paper advanced to second-round review at EC 2026; preprint on arXiv: 2603.12403

Professional Experience

TA at University of Wisconsin–Madison

- CS 240 Discrete Mathematics — Fall 2025
- CS 354 Machine Organization and Programming — Spring 2026
- CS 728 Integer Optimization — Spring 2026

Peer Mentor at University of Wisconsin–Madison

- CS 537 Operating Systems — Fall 2023 - Spring 2025
- CS 540 Intro to AI — Fall 2023

Awards

CRA Outstanding Undergraduate Researcher Award: Honorable Mention

2024 - 2025

Graduated with Distinction, University of Wisconsin–Madison

Class of 2025

6 semesters of Dean's List, University of Wisconsin–Madison