

# XINGCHEN SHA

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## EDUCATION

### B.A. in Computer Science

Columbia University, New York, United States

Graduating May 2025 (expected)

GPA: 4.05

### B.S. in Computer Science

City University of Hong Kong, Kowloon Tong, Hong Kong

Graduating May 2025 (expected)

GPA: 4.01

## EXPERIENCE

### Columbia University: Research Assistant

September 2024 – Present

- Researched jailbreakings and hallucinations in LLMs
- Researched fine-tuning frameworks for LLMs incorporating game theory principles
- Researched RL architectures to counteract biases in AI-driven decisions
- Advisor: [Chengzhi Mao](#), [Junfeng Yang](#)

### University of Southern California: Visiting Student

October 2024 (One Week)

- Host: [Evi Micha](#)

### University of Nebraska–Lincoln: Visiting Student

June 2024 – July 2024

- Researched strategic behaviors in schelling games
- Researched no-regret learning dynamics for games
- Host: [Hau Chan](#)

### UNSW Sydney: Research Assistant

October 2023 – Present

- Collaborator in the NSF CSIRO-funded project [Fair Sequential Collective Decision Making](#)
- Researched group-fairness in multi-period facility location problems
- Researched temporal fairness in participatory budgeting
- Researched multi-winner voting with predictions
- Advisor: [Haris Aziz](#), [Hau Chan](#), [Toby Walsh](#), [Lirong Xia](#)

### Hong Kong Chu Hai College: Research Assistant (full-time)

June 2022 – April 2023

- Researched facility location games with capacity constraints
- Researched multi-stage facility location games in dynamic settings
- Researched truthful mechanism design with private optional preferences
- Implemented visualization for misbehaviors in strategic games
- Advisor: [Hau Chan](#), [Minming Li](#), [Pinyan Lu](#)

### City University of Hong Kong: Research Assistant

September 2021 – May 2022

- Researched differentiable metrics for image captioning training
- Built Soft CIDEr model with sampling from Gumbel distribution
- Advisor: [Antoni B. Chan](#)

## ACTIVITY

### Columbia University: Presenter & Teaching Assistant

September 2024 – Present

Decentralized Finance and Game Theory Seminar

### City University of Hong Kong: Spotlight Presenter

June 2023

STEM Carnival cum Student Project Exhibition 2023

### City University of Hong Kong: Organizer

May 2023 – September 2023

Hong Kong Secondary School Coding Challenge 2023 (HKSC2023)

**City University of Hong Kong: Presenter & Organizer**

CityU Theory Seminar

September 2022 – September 2023

**City University of Hong Kong: Founder & Organizer**

Hong Kong Secondary School Coding Challenge 2022 (HKSC2022)

May 2022 – September 2022

## SERVICES

**City University of Hong Kong: College of Engineering Student Chapter Panel**

November 2022 - Present

**City University of Hong Kong: Freshman Mentor**

September 2022 - December 2022

## SELECTED HONORS & AWARDS

**Upsilon Pi Epsilon**

September 2024

**Dean's List at Columbia University**

September 2023 – May 2024

**VTech Group of Companies Scholarship**

June 2023

**Dean's List at City University of Hong Kong**

September 2020 – May 2023

**The College of Engineering Dean's Scholarship**

April 2023

**HKSAR Government Scholarship**

February 2023

**CityU Scholarship**

February 2022

## WORKING PAPERS (\* ALPHABETICAL ORDER )

**Strategyproof Mechanism Design in Schelling Games \***

Hau Chan, Jiaqian Li, **Xingchen Sha**

**Mitigating Hallucination in Large Language Models through Debating**

**Xingchen Sha**, Chengzhi Mao, Junfeng Yang

## UNDER REVIEW (\* ALPHABETICAL ORDER )

**Strategyproof Mechanism for Two Heterogeneous Facilities with Constant Approximation Ratio \***

Minming Li, Pinyan Lu, **Xingchen Sha**, Yuhao Yao, Jialin Zhang, Submitted to Games and Economic Behavior

**Group Fairness in Multi-period Mobile Facility Location Problems \***

Haris Aziz, Hau Chan, **Xingchen Sha**, Toby Walsh, Lirong Xia, Submitted to IJCAI 2025

**Mechanism Design for Facility Location Problems with Capacity Constraints in Bounded Location Space**

**Xingchen Sha**, Hau Chan, Vincent Chau, Ken Fong, Minming Li, Wai Lun Lo, Submitted to UAI 2025

## PUBLICATIONS (\* ALPHABETICAL ORDER )

**Facility Location Games with Optional Preferences: A Revisit**

**Xingchen Sha**, Shuyu Bao, Hau Chan, Vincent Chau, Ken Fong, Minming Li, AAAI 2025

**Randomized Strategyproof Mechanisms for Multi-stage Facility Location Problem with Capacity Constraints**

Ken Fong, **Xingchen Sha**, Hau Chan, Vincent Chau, Wai Lun Lo, IJCS-FAW 2024

**Group Fairness in Multi-period Mobile Facility Location Problems \***

Haris Aziz, Hau Chan, **Xingchen Sha**, Toby Walsh, Lirong Xia, AAMAS 2025 (Extended Abstract), ADT 2024 (Abstract)

## SKILLS

**Programming Languages:**

C/C++, Python, Java, SQL, Bash, HTML

**Professional Applications:**

Latex, Matlab, PyTorch, TensorFlow, Git