# **CHENGHAN ZHOU**

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**EDUCATION** 

Stanford University, Stanford, CaliforniaSep. 2024 - PresentPhD in Computer ScienceGPA: 4.0/4.0Princeton University, Princeton, New JerseyAug. 2022 - May 2024M.S.E. in Computer ScienceGPA: 4.0/4.0University of Virginia, Charlottesville, VirginiaAug. 2017 - Dec. 2020B.A. in Computer Science & Cognitive ScienceGPA: 3.97/4.0

# RESEARCH EXPERIENCE

# Stanford University, CS Theory Group

Sep. 2024 - Present

- Advisor: Professor Ashish Goel.
- Research Topics: Social Choice in Decentralized Finance.

## **Princeton University, Theory of Computation Group**

Sep. 2022 - Jan. 2025

- Advisor: Professor Matt Weinberg.
- Research Topics: Mechanism Design in Cryptocurrency.

#### **Princeton University, Theory of Computation Group**

Dec. 2022 - Present

- Research Advisor: Professor Mark Braverman.
- Research Topics: VCG mechanism for two-sided matching.

## Shanghai University of Finance and Economics, Institute for Theoretical Computer Science

Sep. 2021 - Jun. 2022

- Advisor: Professor Pinyan Lu.
- Research Topics: Combinatorial auctions with interdependent valuations.

## University of Virginia, Strategic Intelligence for Machine Agents Lab

Jan. 2019 - Jul. 2022

- Advisor: Professor Haifeng Xu.
- Research Topics: Algorithmic information design in congestion games and security games for social welfare maximization.

#### IN SUBMISSION

- Geoffrey Ramseyer, Chenghan Zhou, Ashish Goel, Short Paper: Knapsack Voting for Concurrent Block Proposals
- (α β) Mark Braverman, Jingyi Liu, Eric Xue, Chenghan Zhou, Hardness of Approximate Hylland-Zeckhauser Equilibria

# **PUBLICATIONS**

- $(\alpha \beta)$  Amit Levy, S. Matthew Weinberg, Chenghan Zhou, Analyzing the Impact of Decentralization on Users, In Proc. of the 17th Innovations in Theoretical Computer Science (ITCS 2026) [arxiv].
- (α β) Linda Cai, Jingyi Liu, S. Matthew Weinberg, Chenghan Zhou, Profitable Manipulations of Cryptographic Self-Selection are Statistically Detectable, In Proc. of the 6th International Conference on Advances in Financial Technologies (AFT 2024) [arxiv].
- $(\alpha \beta)$  *Pinyan Lu, Enze Sun, Chenghan Zhou*, **Better Approximation for Interdependent SOS Valuations**, In Proc. of the 18th Conference on Web and Internet Economics (WINE 2022) [arxiv].
- Chenghan Zhou, Andrew Spivey, Haifeng Xu, Thanh H. Nguyen, Information Design for Multiple Uncoordinated Defenders: Work Less, Pay Off, In Proc. of the Conference on Uncertainty in Artificial Intelligence (UAI 2022), also accepted to MDPI Games Journal.
- Chenghan Zhou, Thanh H. Nguyen, Haifeng Xu, Algorithmic Information Design in Multi-Player Games: Possibility and Limits in Singleton Congestion, In Proc. of the 23rd ACM Conference on Economics and Computation (EC 2022) [arxiv].

# **SERVICE**

Program Committee for Advances in Financial Technologies 2023 (AFT'23).

Conference Referee for Innovations in Theoretical Computer Science 2024 (ITCS'24), ACM Transactions on Economics and Computation.

#### **AWARDS**

Stanford University School of Engineering Fellowship
CRA Undergraduate Research Awards, Honorable Mentions
2024 - 2025
2020

# **TEACHING**

**Economics and Computation** (COS445), teaching assistant & preceptor **Theory of Computation** (COS487), teaching assistant

Princeton 2023S, 2024S Princeton 2023F Theory of Algorithms (COS423), teaching assistant & preceptor Artificial Intelligence (CS4710), teaching assistant Computer Architecture (CS3330), teaching assistant Algorithm (CS4102), teaching assistant

Princeton 2022F UVA 2020S UVA 2019F UVA 2019F

# INDUSTRIAL EXPERIENCE

NetEase Game Department, Algorithm Engineer Intern Google LLC, Pigweed Project, Software Engineer Intern Jun. 2021 - Aug. 2021 May 2020 - Aug. 2020