Clayton Thomas

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Education

2018–2023 **Ph.D. in Computer Science**, *Princeton University*, GPA: *3.95*.

2014–2017 **B.S. in Mathematics**, *Purdue University*, GPA: *4.00*.

2014–2017 **B.S. in Computer Science**, *Purdue University*, GPA: *4.00*.

Publications and Preprints

[1] Linda Cai and Clayton Thomas. "The Short-Side Advantage in Random Matching Markets". In: *Symposium on Simplicity in Algorithms (SOSA)*. SIAM. 2022, pp. 257–267.

[2] Yannai Gonczarowski, Ori Heffetz, and Clayton Thomas. "Strategyproofness-Exposing Mechanism Descriptions". Working paper. 2022.

[3] Itai Ashlagi, Mark Braverman, Amin Saberi, Clayton Thomas, and Geng Zhao. "Tiered Random Matching Markets: Rank is Proportional to Popularity". In: *Proceedings of the 12th Proceedings of the Innovations in Theoretical Computer Science (ITCS)*. 2021.

[4] Aviad Rubinstein, Raghuvansh R Saxena, Clayton Thomas, S Matthew Weinberg, and Junyao Zhao. "Exponential Communication Separations Between Notions of Selfishness". In: *Proceedings of the 53rd Annual ACM SIGACT Symposium on Theory of Computing (STOC)*. 2021, pp. 947–960.

[5] Clayton Thomas. "Classification of Priorities Such That Deferred Acceptance is OSP Implementable". In: *Proceedings of the 22nd ACM Conference on Economics and Computation (EC)*. 2021, pp. 860–860.

[6] Linda Cai, Clayton Thomas, and S Matthew Weinberg. "Implementation in Advised Strategies: Welfare Guarantees from Posted-Price Mechanisms when Demand Queries are NP-hard". In: *11th Innovations in Theoretical Computer Science Conference (ITCS)*. 2020, p. 61.

[7] Linda Cai and Clayton Thomas. "Representing All Stable Matchings by Walking a Maximal Chain". Mimeo. 2019. URL: `https://arxiv.org/abs/1910.04401`.

[8] Venkata Gandikota, Elena Grigorescu, Clayton Thomas, and Minshen Zhu. "Maximally Recoverable Codes: The Bounded Case". In: *Allerton Conference on Communication, Control, and Computing*. 2017.

Leadership and Service

2022 **SIGecom Seminar Series Co-organizer**.

2022 **SIGecom EC'22 Website Chair / Student General Chair**.
Updated website for 2022 ACM Conference on Economics and Computation. Screen-recorded conference tutorials.

March 2021 **Co-Organized Princeton TCS Student Theory Day**.
Single-day online event for students to present their work.

2019-2022 **Subreviewer for theoretical CS conferences**.
WINE'19, ESA'20, SODA'20, WINE'20, ITCS'21, SODA'21, ICALP'21, WINE'21, ITCS'22, ESA'22, SODA'22, STOC'22, SODA'23

2019-2020 **Princeton CS Department Preceptor**.
For "Reasoning about Computation" and "Economics and Computation". Lectured in precept, graded homework, answered online forum questions. Assisted in the transition to online instruction during Spring 2020.

2019-2020 **Gems of TCS Reading Group Organizer**.
Scheduled and organized student reading group. Also gave talks in this group on: Vickrey-Clarke-Groves payments, hard-core distributions, Arrow's impossibility theorem, swap regret and correlated equilibria, obvious strategyproofness, read-once branching programs, explainable mechanism design, introductory mechanism design.

Work Experience

Summer 2016 and 2017 **Facebook Software Engineering Intern**, *Menlo Park, CA*.
Worked on Haskell code quality, debugging, and efficiency in Facebook's Sigma infrastructure. Worked on Retrie, a Haskell refactoring tool.

Summer 2015 **Salesforce Software Engineering Intern**, *Indianapolis,IN*.
Created a Google Chrome developer extension for debugging installation of Predictive Intelligence embedded Javascript.

Awards and Honors

2022-2023 **Wallace Memorial Fellowship in Engineering**.
Awarded to 3 students across Princeton School of Engineering.

2023 **Siebel Scholar award**.
Thomas and Stacey Siebel Foundation.

2021 **Princeton University School of Engineering and Applied Science Award for Excellence**.

2020 **NSF GRFP Honorable Mention**.

2018 **CRA Outstanding Undergraduate Researcher Award Honorable Mention**.

2018 **NSF GRFP Honorable Mention**.

2014–2017 **Purdue University Dean's List and Semester Honors**.

2015 **Neel Scholarship**.
Awarded by the computer science department for performance in coursework.

2014–2017 **National Merit Corporate Scholarship**.
Provided by Dow AgroSciences.