

**Sam Taggart**

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**Education:**

**Oberlin College and Conservatory**

B.A., Mathematics (Minor in Computer Science), 2012  
B.M., Violin Performance, 2012

**Northwestern University**

Ph.D Candidate in Computer Science, advised by Jason Hartline

*Relevant Graduate Coursework:*

Social Network Analysis, Microeconomic Theory, Static Optimization, Dynamic Optimization, Game Theory, Decision Theory, Price of Anarchy, Econometrics, Mechanism Design and Approximation, Stochastic Models.

*Graduate GPA: 3.686*

**Publications:**

N. Immorlica, B. Lucier, E. Pountourakis, and S. Taggart. Repeated Sales with Multiple Strategic Buyers. *Working Paper*.

J. Hartline, and S. Taggart. Non-Revelation Mechanism Design. *Working Paper*.

J. Hartline, D. Hoy, and S. Taggart. Price of Anarchy for Auction Revenue. *EC 2014*.

C. Cusack, T. Lewis, D. Simpson, S. Taggart. The Complexity of Pebbling in Diameter Two Graphs. *SIAM J. Discrete Math 2012*

R. Buehler, Goldman, D. Libben-Nowell, Y. Pei, Jamie Quadri, A. Sharp, S. Taggart, T. Wexler, K. Woods. The Price of Civil Society. *WINE 2011*

**Research Programs:**

**Carleton College**, *Computational Social Science Research (Summer 2010)*: Studied the effects of social network externalities on the price of anarchy for simple load balancing games. With Tom Wexler, Alexa Sharp, and David Libben-Nowell.

**Hope College**, *Summer Computer Science Research Experience for Undergraduates (Summer 2011)*: Studied the complexity of algorithmic problems related to graph pebbling, a network diffusion model with applications to abstract algebra. Helped develop *Algoraph*, an algorithmic/educational tool for solving NP-hard combinatorial problems ([graph.computinggames.org](http://graph.computinggames.org)). With Charles Cusack.

**eBay Research Labs**, *Summer Research Internship (Summer 2013)*: Studied algorithms for efficiently computing competitive equilibria in matching markets where buyers have varying levels of trust or risk in transacting with different sellers. With Kamal Jain.

**Microsoft Research, New England Lab**, *Summer Research Internship (Summer 2016)*: Studied the computation of welfare-maximizing prices from sampled buyer values, the design of robust mechanisms for agents with nonlinear value for money, and other problems at the frontier of economics and theoretical computer science. With Brendan Lucier and Nicole Immorlica.

**Yahoo!**, *Graduate Research Internship (Fall 2016)*: In progress. With Chris Wilkens.

**Northwestern University**, *Graduate Researcher (Current)*.

#### Honors and Awards:

2007: Stearns Scholarship (Oberlin College)

2012: Highest Honors, Mathematics (Oberlin College)

2012: Rebecca Cary Orr Prize in Mathematics (Oberlin College)

2012: Cabell Graduate Fellowship (Northwestern University)

2012: Honorable Mention, NSF Graduate Research Fellowship

2016: EECS Best TA Award (Northwestern University)

#### Teaching:

*Theory of Computer Science (Teaching Assistant)*. Oberlin College. Fall 2011. Tom Wexler.

*Introduction to Algorithms (Tutor)*. Oberlin College. Spring 2012. Alexa Sharp.

*Design and Analysis of Algorithms (Secondary Teaching Assistant)*. Northwestern University. Spring 2013. Jason Hartline.

*Design and Analysis of Algorithms (Teaching Assistant)*. Northwestern University. Fall 2013. Jason Hartline.

*Algorithms (Instructor)*. Northeastern University. Fall 2014.

*Design and Analysis of Algorithms (Teaching Assistant)*. Northwestern University. Fall 2015. Jason Hartline.

*Design and Analysis of Algorithms (Teaching Assistant)*. Northwestern University. Fall 2016. Jason Hartline.

#### Presentations and Workshops:

April 2014: Bellairs Workshop on Algorithmic Game Theory. Bellairs, Barbados

June 2014: EC 2014, Palo Alto, CA

July 2015: 22nd International Symposium on Mathematical Programming. Pittsburgh, PA.

May 2015: Economics and Computation Seminar. Harvard University. Cambridge, MA

June 2016: 2nd Workshop on Mechanism Design and Data Science. EC 2016. Maastricht, Netherlands

July 2016: Theoretical Computer Science Seminar. University of Pennsylvania. Philadelphia, PA

Service

*Reviewer/Subreviewer:*

Optimization Letters

SIAM Symposium on Discrete Algorithms 2017

International World Wide Web Conference (WWW) 2017

Technical Background:

*Software:* LaTeX, Mathematica, OPL Studio, Eclipse, MS Excel, Stata, R

*Languages:* Java, Scheme, OPL, Python