

Zachary Fulker

Education:

University of Pittsburgh, Pittsburgh, PA (2014-2018)

B.S. in Mathematics, Economics; Minor in Applied Statistics, Computer Science

GPA: 3.79, Summa Cum Laude

Northeastern University, Boston, MA (2018-present)

PhD Student in Network Science, Research Assistant in Collaborative Social Systems Lab

GPA: 3.965

Research Interests:

My primary research interests are dynamic networks, search behavior, and organizational theory. My ongoing research includes the spread of spite on an evolving network and a series of collective problem-solving experiments.

Conference Presentations:

Fulker, Z., Folta, T., and Mentch, L. “Investigation of Advanced NBA Metrics.” Carnegie Mellon University Sports Analytics Conference. (Poster). October 2017.

Fulker, Z., Folta, T., and Mentch, L. “The Simple Story of Advanced NBA Metrics.” Joint Statistical Meetings. (Poster and Speed-Talk). July 2018.

Fulker, Z., Klein, B., and Riedl, C. “Optimizing the design of rugged landscapes to maximally distinguish models of search behavior in humans.” New England Conference on Complex Systems. (Poster). April 2020.

Fulker, Z., Forber, P., Smead, R., and Riedl, C. “Preferential Interaction and the Emergence of Spite: Endogenous Correlation on an Evolving Network.” Collective Intelligence.

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(Conference Presentation). June 2020.

Fulker, Z., Forber, P., Smead, R., and Riedl, C. “Preferential interaction and the emergence of spite.” International Conference on Computational Social Science. (Conference Presentation). July 2020.

Conference Organizing:

Web Chair – Collective Intelligence 2020. Boston, MA.

Working Papers & Currently Under Review:

“Spite is contagious on dynamic networks” with (Riedl, C., Smead, R., Forber, P.)

- Demonstrates the ability of dynamic networks to evolve spiteful behavior in cooperative games, or analogously cooperative behavior in noncooperative games, without any exogenous mixing assumptions. The results are driven by the formation of anti-correlation between defectors and correlation between cooperators, while the level of overall correlation remains stable.

Teaching:

BUSN 6343: Sharing Economy, Crowdsourcing, and Digital Business Transformation, MBA, fall 2020. (Teaching Assistant)

Computing Skills:

Python, R, C++

Honors and Awards:

Stamps Leadership Scholar at The University of Pittsburgh

2016 Hesselbein Global Academy Fellow

2017 Brackenridge Summer Research Fellowship at The University of Pittsburgh

Internship Experience:

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Lumen Research Data Science Intern, London, England Fall 2016

- London based start-up focused on eye-tracking research for the advertising industry
- Implemented an SQLite Database for eye-tracking data using Python Peewee
- 20 hours/week for full semester

Management Science Associates IMS Intern, Pittsburgh, PA Summer 2016

- Analyzed data sets for practical trends
- Developed a variety of Excel workbooks to provide quick access to relevant data
- Cleaned data

United Concordia Underwriting Intern, Harrisburg, PA Summer 2015

- Ensured underwriting guidelines met
- Wrote queries to retrieve data
- Built and tested parameterized queries in Microsoft Access for long term use

Relevant Volunteer Work:

Coro Pittsburgh, Spring 2017

- Reorganized data storage techniques for non-profit

Seguru, Fall 2015–Spring 2016

- Worked with a start-up focused on developing an app for Latin Americans that uses crowd-sourced data to predict crime and helps users avoid it