

# Allison Morgan

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WEB: <http://allisonmorgan.github.io>

## SUMMARY

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Computational social scientist seeking opportunities in data science to use machine learning, social network analysis, and causal inference to measure fairness and support actionable policies.

**Skills:** Data analysis, scientific communication, data visualization (D3, matplotlib), data engineering (SQL, GCP, web APIs), programming (Python, Go, R)

**Awards:** National Science Foundation Graduate Research Fellow, Published in PNAS & Science Advances

## EMPLOYMENT

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### University of Colorado at Boulder

Boulder, CO

*Graduate Research Assistant, Computer Science Department (Advisor: Aaron Clauset) August 2016 - Present*

- **Effects of Academic Environment on Researcher Productivity:** Showed that researchers' current institution is more important than their previous one for determining future productivity using matching. [[Publication](#), Presented at ATL Conference on Science Policy 2019]
- **Automatically Assembling a Full Census of an Academic Field:** Developed web crawler for collecting longitudinal data on faculty hiring to understand the complex interactions between faculty hiring and observed patterns of inequality. [[Publication](#), Presented at IC2S2 2018 & PAA 2018 Workshop]
- **Modeling the Spread of Research Ideas:** Tested causal hypothesis – faculty hiring acts as a conduit for ideas spreading – using numerical simulations, and investigated the tradeoff of quality and network influence. [[Publication](#), [Press](#), Presented at IC2S2 2018, NetSci 2017, Society for Young Network Scientists (SYNS) 2019]
- **Measuring the Impact of Parenthood on Academic Careers:** Used difference-in-differences to measure researchers' productivity around parenthood. Open sourced parental leave policies at universities in the US & Canada. [[Publication](#), [Post](#), [Press](#), Presented at IC2S2 2019, Women in Network Science (WiNS) 2021]
- **Diversity of Academic Publishing Trajectories:** Showed using linear regression that a small fraction of researchers follow the average productivity trend – a rapid rise and then gradual decline. [[Publication](#)]
- **Quantifying the Socioeconomic Roots of Faculty:** Conducted a large representative survey of faculty and used census demographic data to highlight their privileged upbringings.

### New York Times

New York, NY

*Data Science Intern*

*Summer 2019*

- **Fairness & Word Embeddings:** Worked with interdisciplinary stakeholders to review several standard algorithmic fairness criteria. Using three different algorithms, evaluated custom versus pre-trained word embeddings within an existing data science project.

### Lytics (marketing technology start-up)

Portland, OR

*Data Scientist*

*August 2014 - June 2016*

- **Applied Machine Learning:** Developed package for anomaly detection in marketing trends, written in Go. [[Code](#), [Post](#)]. Implemented open source software for a naive Bayesian classifier in Go. [[Code](#), [Post](#)]

## EDUCATION

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### University of Colorado at Boulder

Boulder, CO

*Doctor of Philosophy in Computer Science (Expected May 2021)*

*August 2016 – Present*

- **Coursework:** Network Analysis & Modeling, Machine Learning, Information Visualization, Natural Language Processing, Software Engineering, Statistical Methods & Modeling, Causal Inference

### Reed College

Portland, OR

*Bachelor of Arts in Physics; Academic Commendations 2012–2014*

*August 2010 – May 2014*