

# Allison Morgan

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**Education**      **University of Colorado** Boulder, CO. PhD Computer Science, Expected May 2021

- Relevant Coursework: Network Analysis & Modeling, Machine Learning

**Reed College** Portland, OR. BA Physics, May 2014

- Relevant Coursework: Algorithms & Data Structures, Scientific Computation
- Awards: Commendations for Academic Excellence in 2012-2014

**Research**      **Research Assistant** Computer Science Department, University of Colorado. Boulder, CO. August 2016 to Present

- Advised by Professor Aaron Clauset. Investigating social inequality within faculty hiring networks. Writing a web crawler to scrape faculty directories for all departments of PhD granting institutions. Our objective is to collect longitudinal data on faculty hiring to better understand the interactions between the dynamics of faculty hiring and observed patterns of inequality.

**Research Assistant** Physics Department, Reed College. Portland, OR. May 2013 to August 2013

- Advised by Professor Joel Franklin. Computed bound state solutions to Schrödinger's equation for a potential due to gravity. Computations were done using 4th order Runge-Kutta in Mathematica. Presented my contribution to Reed's Physics Department. Published in *Classical Quantum Gravity*.

**Research Assistant** Department of Electrical and Computer Engineering, University of Illinois at Chicago. Chicago, IL. May 2012 to August 2012

- Advised by Professor Alan Feinerman. Experimentally determined the percolation threshold for rectangle shaped pores using a  $CO_2$  laser cutting system. Learned MATLAB and AutoCAD quickly and independently. Presented results to undergraduates at a conference at the conclusion of the internship.

**Professional**      **Data Scientist** Lytics. Portland, OR. August 2014 to June 2016

- Planned and implemented products to help marketers understand and address their clients' behavior across channels. Some of these solutions included: [anomaly detection](#) on trends in segment sizes, improving an existing random forest model for predicting users' likelihood to return, and integrating with third-party services to [classify the content](#) users have viewed.

**Skills**      Languages: Go, R, Python, Mathematica, MATLAB, HTML

Database Systems: Elasticsearch, MongoDB, Kafka, SQL

**Activities**

- Constructed a musical staircase in an academic building using an Arduino Uno and 16 pairs of lasers and phototransistors. Featured in [Reed Magazine](#).
- Co-founded Reed's women in STEM support group ("STEMfemmes") and organized faculty lectures and student and alumni socials in support. Featured in [Reed Magazine](#).