

Kai Matheson

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EDUCATION **B.A., Vassar College**, Poughkeepsie, New York Expected May 2019
Major: Mathematics • Minor: Urban Studies
Cumulative GPA: 3.90 • Major GPA: 3.92

RELEVANT COURSEWORK **Mathematics:** Real Analysis, Methods of Applied Mathematics, Modern Algebra, Applied Partial Differential Equations, Mathematical Biology, Discrete Mathematics, Linear Algebra

Statistics/Economics: Economics Senior Research, Economics of Inequality & Discrimination, Econometrics, Applied Statistical Modeling, Mathematical Statistics, Advanced Microeconomics, Urban & Regional Economics, Probability Models

Computer/Cognitive Science: Data Structures & Algorithms, Machine Learning, Computational Modeling Approaches in Cognitive Science, Simulation & Analysis in the Interdisciplinary Sciences

LANGUAGES & TOOLS **Proficiency:** Python, R, Racket, Mathematica, MATLAB, \LaTeX , Excel
Working Knowledge: SQL, Stata, Java, Geographic Information Systems

RESEARCH **Department of Economics**, Vassar College Fall 2018 - Present
Undergraduate Thesis Advisor: Sarah Pearlman
Details: Development of new spatial measures for segregation and exploration of relationship with absolute upward mobility using interdisciplinary methods

Mathematical & Theoretical Biology Institute Summer 2017
Arizona State University, Tempe, Arizona PI: Anuj Mubayi
Project: *Transportation Networks Optimized for Various Income Groups and their Impact on the Spread of Airborne Disease*
Details: Dynamical systems, applied graph theory • Presented at WIMIN 2017 & JMM 2018

Data Privacy Lab, Institute of Quantitative Social Sciences Summer 2016
Harvard University, Cambridge, Massachusetts PI: Latanya Sweeney
Project: *Voter Identity Theft: Submitting Changes to Voter Registrations Online to Disrupt Elections*
Details: File I/O, surveying, technical writing

WORK EXPERIENCE **Bank of New York Mellon Corporation**, Jersey City, New Jersey Summer 2018
Technology Summer Analyst • Clearance and Collateral Technology, Machine Learning
Details: Independent research involving time series analysis, Markov Chains and evolutionary computation methods

Quantitative Reasoning Center, Vassar College
Q-Tutor • Mathematics & Economics 2016 - Present
Committee Chair • Campus Awareness & Communications 2018 - Present
Duties: Prepare worksheets, hold review sessions & open tutoring hours

Exodus Transitional Community, Inc., Poughkeepsie, New York Spring 2016
Field Work Intern • Career coaching & HSE tutoring
Exodus is a reentry program run by & for formerly incarcerated people

HONORS **Thompson-Bartlett Fellowship**, Vassar College May 2018
In honor of underrepresented genders in science, math & computer science

ACTIVITIES **ASA DataFest**, Vassar College & Marist College
Honorable Mention: Best Data Analysis • Designed shirts & posters May 2018
Winner: Best Use of Outside Data May 2017

Boilerplate Magazine • Science & Technology Section Co-Editor 2016 - Present

Math Majors Committee • Secretary 2017 - 2018