

Hope Johnson | Curriculum Vitæ

490 Kosciuszko Street, Apt 4R – Brooklyn, NY 11221

📞 (206) 909.7183 • ✉ hopecaneel [a t] gmail.com
🌐 <https://hjohns12.github.io/>

Education

Macalester College

St. Paul, MN

B.A., Statistics, Economics

2013–2017

- Cumulative GPA: 3.65
- Statistics Honors Thesis: "A Statistical Analysis of Body-Worn Cameras in Officer-Involved Shootings"
- Economics Capstone: "Natural Disasters and Mobile Banking Adoption in 55 Developing Countries"

Independent and Freelance Research

Accountable Policing Project - Boston

Independent Project

April 2018 – present

- Develop a database documenting instances of police misconduct within the Boston Police Department;
- Working in collaboration with individuals affiliated with Legal Aid Society, Measures for Justice, and the University of Michigan School of Law.

Far-Right Media Manipulation on YouTube

Data & Society

April 2018

- Scrape, clean, and compile data from the YouTube API on far-right YouTube influencer's video statistics;
- Analyze differences between videos related to mainstream media and videos unrelated to mainstream media.

A Statistical Analysis of Body-Worn Cameras in Officer-Involved Shootings

Statistics Honors Thesis

Aug. 2016 – May 2017

- Specify a zero-inflated negative binomial regression to analyze the relationship between body-worn cameras and victim race in officer-involved shootings.

Racial Difference in the Predictive Accuracy of a Recidivism Risk Assessment Instrument

Survival Analysis Term Paper

Fall 2016

- Test if the COMPAS recidivism risk assessment tool predicts the risk of recidivism with equal accuracy across races using a Cox proportional hazards model;
- Awarded first place in the American Statistical Association's undergraduate research paper competition (USRESP).

Natural Disasters and Mobile Banking Adoption

International Development Term Paper

Fall 2016

- Analyze whether a country-wide environmental shock is associated with increasing adoption of mobile banking in 55 developing countries.

Heroin and Naloxone: Disentangling an Epidemic

Econometrics Term Paper

Spring 2016

- Investigate the impact of making naloxone available to heroin users;
- Awarded third place in the Minnesota Economic Association's undergraduate research paper competition.

Farmers' Networks and Extreme Weather Events

Environmental Policy Term Paper

Fall 2015

- Develop a Bayesian decision-tree to model the likelihood that a farmer takes signals from members of their network.

Can Water Be Efficiently Allocated Through Price Policy?

Agricultural Economics Term Paper

Fall 2016

- Empirically investigate three water pricing mechanisms to assess how each maximize social benefit.

Experience

Mathematica Policy Research

Statistical Analyst

Cambridge, MA

Sept. 2017–present

- Develop and implement social network analyses to evaluate health- and criminal justice-related federal and state government programs;
- Perform Bayesian statistical analysis to assess the impact of Medicaid/Medicare intervention programs;
- Simulate correlated patient-level data for regression testing.

Bill & Melinda Gates Foundation

Data Visualization Consultant

Seattle, WA

Dec. 2016–June 2017

- Quantify and visualize gaps between health services and patient care among Kenyan households;
- Prepare visuals, analysis, and discussion for articles in the Journal of Infectious Disease.

Educating Sustainability Ambassadors Initiative

Data Science Research Analyst

St. Paul, MN

June - Aug. 2016

- Construct a linear mixed-effects model to describe the relationship between farm-to-school programs and student educational outcomes in Minnesota.

Crossroads Resource Center

Empirical Research Assistant

Minneapolis, MN

June - Aug. 2015

- Researched the economics of local food supply chains in St. Paul and Minneapolis.

Information Technology

Advanced Proficiency: R, Python, Julia, Stan, LaTeX, Git, Jira, Slack, Stata, Microsoft Office

Intermediate Proficiency: AWS, D3.js, Node.js, JavaScript, HTML, CSS, Processing, Tableau

Basic Proficiency: SQL, SAS, Haskell

Awards, Grants, and Honors

2nd place, Hack for the Sea - Gloucester	2018
1st place, undergraduate research paper contest winner (American Statistical Association)	2017
Recipient of the David Bressoud prize for excellent communication skills in mathematics	2017
Eyeo Festival Student Grant	2017
3rd place, term paper contest winner (Minneapolis Federal Reserve)	2016
Educating Sustainability Ambassador (Howard Hughes Medical Institute/Macalester College)	2016
Omicron Delta Epsilon Economics Honors Society Member	2016
Dean's List (Macalester College)	2013-14
DeWitt Wallace Distinguished Scholar	2013-2017

Presentations and Talks

Friendly Tech Space

Summer Meeting

"Centering Equity in Data Science"

July 2018

Consortium for the Advancement of Undergraduate Statistics Education

Electronic Statistics Research Conference

"Survival Analysis of a Criminal Justice Decision Algorithm"

November 2017

Macalester College

Honors Defense - Department of Applied Mathematics

"A Statistical Analysis of Body-Worn Cameras in Officer-Involved Shootings"

April 2017

Northwestern University

Graduate Research Opportunities for Women in Mathematics (GROW) Conference

"Summer Research as an Undergraduate"

Oct. 2016

Languages

English: Fluent

French: Intermediate

Conversational

Spanish: Basic

Basic words and phrases only

Arabic: Basic

Basic words and phrases only

Bambara: Basic

Basic words and phrases only