# KIMBERLY M. KREISS

kimberlykreiss.github.io

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#### **EDUCATION**

## Rutgers University-New Brunswick

May 2017

New Brunswick, NJ

B.A. in Economics, Cum Laude

Minors in Mathematics and English

Senior Honors Thesis: "An Investigation of Uber Entry on Arrest Rates"

#### **EXPERIENCE**

Federal Reserve Board of Governors

October 2017 - Present

Senior Research Assistant, Division of Consumer and Community Affairs

Washington, DC

- Lead data analyst to study the geospatial patterns of U.S. mortgage lending using R and Tableau. Manage code, production processes, and documentation with other analysts using internal GitLab repository and assist with onboarding new project members
- Combine geographic, economic, and mortgage data to create interactive Tableau dashboards to visualize mortgage lending patterns in relation to branch locations
- Experience working with a wide variety of datasets including data from Census, HMDA, BLS, and FDIC
- Use text mining, natural language processing and machine learning techniques in R and python to extract information from unstructured text data of over 10,000 open-ended responses. Specific techniques include part-of-speech tagging, bigram network analysis, sentiment analysis, random forest and LASSO regression
- Develop and maintain R and Stata programs to clean and analyze data for the annual Survey of Household Economics and Decisionmaking (SHED)
- Wrote new R programs using tools such as ggplot2 to automate the creation of 31 tables and 36 charts for the annual report
- Work with team to migrate existing SHED production work to internal git repositories for version control, better code management, and improved file structure
- Wrote R code to work with the SLURM cluster to produce timely analysis on a large dataset (over 70GB) of credit reporting data

# HONORS & AWARDS

Phi Beta Kappa

Omicron Delta Epsilon (Economics Honors Society)

Paul Robeson Scholar

Departmental High Honors in Economics

#### TECHNICAL STRENGTHS

Software & Tools

R, Stata, Git, SQL, SAS

Programming Languages

Python, Java

Markup

LaTex, MarkDown

#### PRESENTATIONS AND RESEARCH

Presentations "SHED-ing Light on Survey Data: Using R to Automate Production Processes

in the Survey of Household Economics and Decisionmaking." Presentation,

DC R Conference. November 2019.

"Asking Consumers about their Finances." Presentation, Government Advances

in Statistical Programming, BLS. September 2019.

"An Analysis of Open-ended Responses in the Survey of Household Economics

and Decisionmaking." Presentation, Data Showcase, FRB. December 2018.

Works in Progress "Going the Distance: How Banks are Serving New Communities"

"What Does it Mean to be Doing Well Financially?" (with Mike Zabek)

Troland, E., Roth Tran, B. "Economic Vulnerability in Rural America:

Consumer Credit and the Coal Boom-Bust in the 2000s" (research assistance)

#### PROFESSIONAL SERVICE

Federal Reserve Board of Governors and Howard University  $Course\ Assistant,\ Data\ Analysis\ with\ R$ 

January 2018 - Present Washington, DC

- Serve as a lead for recruitment and training. My responsibilities include recruiting new staff volunteers to assist with coordinating the class. I led a team of volunteers to create content for staff trainings including teaching assistant trainings and trainings for GitLab.
- Prepare and give lectures, grade homework, and respond to feedback from students
- Attend office hours weekly to assist students with programming issues and questions

# PROFESSIONAL DEVELOPMENT AND TRAINING

George Washington University, Machine Learning I (data science master's program)

The Data Incubator, Introduction to Machine Learning (python)

**District Data Labs,** Introduction to Python, Data Wrangling and Analysis, Natural Language Processing

Learning Tree International, Advanced Programming in R

The Carpentries, Software Carpentry with R

**PSS Summer School**, Immersion in R (3 week internal course)

General Assembly, Natural Language Processing Workshop (python)

The Urban Institute, Data Visualization Workshop

## RELEVANT COURSEWORK

Machine Learning I Theory of Probability
Big Data and Economic Forecasting Theory of Statistics
Advanced Cross-Sectional and Panel Econometrics Real Analysis

Introduction to Computer Science Differential Equations

Honors Research Seminar I & II Linear Algebra