Katie Jolly

CONTACT INFORMATION

katiejolly6@gmail.com   https://github.com/katiejolly
(703)-881-1282   http://katiejolly.io

EDUCATION

Macalester College, St. Paul, MN   Spring 2019
Majors: Applied Mathematics/Statistics (with honors) and Geography GPA 3.65

Selected courses: Statistical Research Methods in Geography; Statistical Computing and Machine Learning; Metro Analysis; Health GIS; Probability; Core Concepts in Computer Science; Survival Analysis; 2D Design; Bayesian Statistics; Correlated Data; Cultural Atlas Production

TECHNICAL SKILLS

R/RStudio, ArcGIS, QGIS, GitHub, Excel, Python, SQL, HTML5/CSS, LaTeX, Tableau, Django, Jekyll, R Shiny, Adobe Illustrator & InDesign, Leaflet, Inkscape, R Shiny

RESEARCH INTERESTS

Spatial data science, cartography and information design, spatial network analysis, technical communication, public policy evaluation, statistical computing, R package development, Bayesian spatial modeling, civic engagement projects

PROFESSIONAL EXPERIENCE

Macalester College Math, Statistics, and Computer Science Department
Teaching Assistant, MATH 253: Machine Learning and Statistical   Jan. - May 2019
Computing
- Attend class to assist with in-class activities and lectures
- Hold four office hours per week to answer homework and general questions
- Serve as a mentor for students interested in data science and statistics beyond the class
- Grade in-class activities and homeworks promptly
- Meet regularly with professor to talk about my work

Voting Rights Data Institute, MIT/Tufts/Harvard, Cambridge, MA
Undergraduate Summer Fellow   June - August 2018
- Worked on weekly projects related to math and gerrymandering
- Organized a team to build an open source shapefile of 2016 voting precincts in Ohio using digitization of PDF maps and computational methods to approximate boundaries in counties without maps
- Presented updates weekly in an informal session with other fellows and mentors
- Pair-programmed an interactive Shiny app showing the output from the MCMC algorithm that creates millions of potential districting plans by mapping district flips of individual precincts

Macalester College Math, Statistics, and Computer Science Department
Teaching Assistant, COMP 112: Introduction to Data Science   Aug. 2017 - Dec. 2018
- Attended every class to assist with in-class activities and lectures
- Held at least four office hours per week to answer homework and general questions
- Served as a mentor for students in the first year seminar section
- Graded in-class activities promptly

BlueLabs, Washington, DC
Data Science Intern   June - Aug. 2017

- Worked on the data science team doing projects related to political analytics
- Created maps for use in professional presentations
- Wrote Python scripts to scrape web data

Planned Parenthood, St. Paul, MN

Statistical Consultant   Jan. - May 2017
- Built logistic models to predict no-shows
- Applied network analysis and spatial autocorrelation to determine the optimal clinic to open for late hours
- Communicated findings to Planned Parenthood staff in formal presentation to inform changes in scheduling procedures

HONORS AND AWARDS

2019 Undergraduate Statistics Research Project Honorable Mention
2019 Daniel Kaplan Award in Statistics and Data Science
2019 David A. Lanegran Award in Geography
2018-2019 Macalester Student Educator of the Year Award
2019 AAG Marble-Boyle Undergraduate Achievement Award in Geographic Science
2018 eUSR Conference Best Video Presentation
2018 MN GIS/LIS Student Scholar and First Place in Presentation Competition
2017-2018 Macalester Student Educator of the Year Award

COMMUNITY LEADERSHIP

RLadies- Twin Cities
Co-organizer   Dec. 2018 - present
Math, Statistics, and Computer Science Department
Student Representative   Sept. 2018 - May 2019
Women in Math, Statistics, and Computer Science Committee
Committee Member   Dec. 2017 - May 2019

R PACKAGES

Jolly, K; Kelly, K. (2019). approxprecincts: Approximate Voting Precinct Boundaries Using Voterfile Addresses. R package version 0.0.0.9000. https://github.com/ykelly/approxprecincts

Jolly, K. (2018). advicegiveR: R Wrapper for the Advice Slip API. R package version 1.0.0. https://github.com/katiejolly/advicegiveR

PRESENTATIONS

Spatial Data Science in R
rNorth Conference, Aug. 2019
Digitizing, Districting, and Data: Creating an Open-Source Precinct Shapefile for Ohio
eUSR Conference, Nov. 2018
GIS as a Civic Engagement Tool: The Geography of Voting Rights
Macalester Geography Department Seminar, Oct. 2018
Digitizing, Districting, and Data: Creating an Open-Source Precinct Shapefile for Ohio
MN GIS/LIS Conference, October 4, 2018
Political donations from STEM community: Learning dplyr!
RLadies- Twin Cities, December 9, 2017
Writing narratives with data: An introduction to ggplot2!
RLadies- Twin Cities, November 18, 2017
Proud leaders: How women in tech talk about themselves on Twitter

eUSR Conference, Nov. 2017
Proud leaders: How women in tech talk about themselves on Twitter
Hack and Tell DC, August 15, 2017