CONNOR GILROY

Computational social scientist & PhD candidate

Sociologist seeking roles in data science or quantitative social science. I have 7+ years of experience analyzing text, spatial, network, and survey data, with broad skills in statistics, programming, and written and visual communication of analytic insights. My dissertation research uses NLP methods and survey data to explain variations in expressions and experiences of community across digital and location-based contexts.



EMPLOYMENT



University of Washington

Seattle, WA

Graduate Teaching Assistant & Instructor: Taught sections and courses including sociological theory, data and society (undergraduate), social statistics, data science and population processes, Bayesian statistics for the social sciences (graduate) | **R, Stata, Stan**

Graduate Research Assistant: Analyzed Twitter networks of US homeless care organizations, built a web crawler and a PostgreSQL database to scrape and store text data from nonprofit and government webpages (with Zack Almquist); built an agent-based network model of public opinion change (with Katherine Stovel) | **R, Python, SQL, NetLogo**

summer 2022, 2021, Meta ♀ Seattle, WA

Data Science Intern (2022): Analyzed feed engagement with reshared Groups content, built a data pipeline to create a new experimental metric, and reanalyzed a collection of experiments to quantify tradeoffs between types of content | **R, Python, SQL**

User Experience Research Intern (2021, 2020): Designed, fielded, and analyzed a complex survey of job seeker needs and satisfaction (2021); designed and conducted quantitative studies (behavioral log data analysis + survey) of factors driving initial participation in new communities (2020) | R, Python, SQL

2020

The World Bank Group

♀ Washington, DC

Consultant, Survey Data Analysis: Created statistical models and data visualizations of gender-based individual and household disparities in Central Asia | **R**

2015

Epic Systems Corporation

♥ Verona, WI

Quality Assurance: Automated and manual software testing for web APIs and enterprise healthcare software | C#, Python, Excel



EDUCATION

expected 2023

PhD, Sociology

University of Washington

Seattle, WA

Dissertation: "Expressions of Community: Understanding Variations in Community through LGBTQ Experiences."

2018

MA, Sociology

University of Washington

Seattle, WA

Thesis: "How Distinct is Gay Neighborhood Change? Patterns and Variation in Gayborhood Trajectories." *Distinguished Thesis Award in Social Sciences, 2019.* Joined webscraped and geocoded gay bar data with Census data to statistically compare trajectories of change in gayborhoods to matched neighborhoods.

2013

BA, Biology and Geophysical Sciences

University of Chicago

♀ Chicago, IL



SELECTED PUBLICATIONS

2021

Digital Traces of Sexualities: Understanding the Salience of Sexual Identity through Disclosure on Social Media

Gilroy, Connor and Ridhi Kashyap. Socius 7: 1–18. doi: 10.1177/23780231211029499

Compiled a dataset through the Facebook Marketing API, fit Bayesian loglinear models to the results, and used simulations from those models to produce visualizations of variations in sexual identity disclosure rates by age, gender, and relationship status. Funded by an NIH Big Data to Knowledge (BD2K) fellowship.

2019

Humans in the Loop: Incorporating Expert and Crowdsourced Knowledge for Predictions using Social Survey Data

Filippova, Anna, Connor Gilroy, Ridhi Kashyap, Antje Kirchner, Allison C. Morgan, Kivan Polimis, Adaner Usmani, and Tong Wang. Socius 5: 1–15. doi: 10.1177/2378023118820157. (corresponding author)

Fit regularized regression models to predict life outcomes from survey data, varying the coefficient penalties according to human-derived variable importance ranking from a wikisurvey. Managed the reproducibility of our code base and coordinated the project writeup. Funded by the Russell Sage Foundation Summer Institute in Computational Social Science.



CONTACT

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SKILLS

Programming:

R, Python, SQL, Stan

Data science:

- Data collection: webscraping and crawling, geocoding, APIs (US Census, social media)
- Databases: Hive and PostgreSQL
- Surveys: stratified survey design and weighting
- Statistical modeling: GLMs, hierarchical models, regularized regression, Bayesian statistics
- Text analysis: topic modeling, word embeddings
- Data visualization: ggplot2, matplotlib, shiny

CSS workshops organized:

- SICSS-Seattle (2018)
- IUSSP training workshop on digital demography (Cape Town, 2017)
- Computational Demography Working Group (UW, 2018-2020)
- Word Embeddings for the Social Sciences (2021)
- Comparing Word Embedding Models (2021)

This resume was made with the R package pagedown.

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