

Zayne Sember

✉ zayneember@gmail.com 📞 [REDACTED] 📍 San Diego, CA 🔗 zayneember.com

🌐 linkedin.com/in/zayneember/ 🏠 github.com/zayneember

PROFILE

Ph.D. candidate leveraging panel and time series analysis of large datasets, statistical computing and computer science, experimental and observational research design, and NLP. Experience in the academic, nonprofit, and government sectors demonstrating an ability to communicate complex topics to technical and non-technical audiences.

EDUCATION

Ph.D. Political Science with Specialization in Computational Social Science, Expected 2025,

University of California, San Diego

Dissertation - *Timely Talk: Responsive Legislator Communication*

- Using computational textual analysis of legislator communications paired with time series and cross-sectional data, this three paper dissertation analyzes when and to what extent members of Congress are responsive to their constituents.

M.A. Political Science, 2022, *University of California, San Diego*

B.S. Computational Physics, 2020, *University at Buffalo, State University of New York*

Summa cum laude

B.A. Political Science, American Politics Concentration, 2020,

University at Buffalo, State University of New York

Summa cum laude

SKILLS

Programming: R (proficient in base and tidyverse), Python (proficient), SQL, Git, C++, Java, SPSS, Qualtrics | **Statistical Analysis:** Causal inference, machine learning, natural language processing, text as data, time series analysis, survey experiments | **Research Design:** Observational and experimental, quantitative and qualitative methods | **Data Collection:** Web-scraping, data merging and transformation

PROJECTS

speccurveR: Easy, Fast, and Pretty Specification Curve Analysis [↗](#)

R package, available on CRAN, for specification curve and model sensitivity analysis, see it in use here [↗](#)

SufjanViz [↗](#)

An interactive Shiny dashboard for visualizing and analyzing the discography of Sufjan Stevens using track data and natural language processing of lyrics

New Audience, New Message: Constituency Change and Responsive Legislator Communication [↗](#)

Study employing topic modeling of congressional communications and a regression discontinuity design to measure legislator responsiveness

PROFESSIONAL EXPERIENCE

Private Tutor , <i>University of San Diego</i> Tutoring a professor of communications in R and graduate statistics	2023 – present San Diego, CA
Graduate Teaching Assistant , <i>University of California, San Diego</i> Assist with teaching of substantive and technical undergraduate political science courses including Quantitative Analysis of Congressional Politics, Political Inquiry (research design/analysis in SPSS), Policy Analysis, Summer Training Academy for Research Success R Bootcamp, Data Analytics for National Security	2020 – present San Diego, CA
Vice President and Boad Member , <i>Science Demands Action</i> Oversaw the transition from a grassroots community group to a 501(c)(3) nonprofit that organized community events to advocate for the use of science for social good	2017 – 2020 Buffalo, NY
Intern , <i>Office of Senator Charles Schumer</i>	2019 Buffalo, NY
Intern , <i>Erin Cole for Congress</i>	2018 Buffalo, NY
Intern , <i>Office of Lieutenant Governor Kathleen Hochul</i>	2017 Buffalo, NY

RESEARCH EXPERIENCE

University of California, San Diego , <i>Graduate Research Assistant</i> Worked with several professors collecting, cleaning, and analyzing large datasets for numerous research projects including congressional hearing transcripts, historical documents, and Google restaurant reviews	2022 – 2024
University at Buffalo, State University of New York , <i>Undergraduate Research Assistant</i>	2019 – 2020