

Sofia Sarak

sarak@ucsb.edu • (203) 962-9905 • sofiasarak.github.io • New York, NY

EDUCATION

Master of Environmental Data Science (June 2026)

Bren School of Environmental Science & Management, University of California, Santa Barbara (UCSB)

Coursework: [Geospatial Analysis](#), [Data Visualization & Communication](#), Machine Learning, [Data Management](#), Statistics

Bachelor of Arts in Earth & Environmental Sciences, Economics (May 2025)

Wesleyan University, Middletown, CT

Coursework: Econometrics, Environmental Econ, Labor Econ, Education Econ, Renewable Energy, Soils, Sedimentology

PROJECT EXPERIENCE

Power Lines and People: Mapping How Distribution Grid Constraints Shape Resilient and Equitable Energy Transition

Master's Capstone Project, UCSB (12/25—Present)

- Develop a [reproducible analytical framework](#) in Python and QGIS that spatially links 11.5 million California homes to electric distribution grid and sociodemographic data, creating a previously non-existent geospatial data package
- Identify communities that are vulnerable to grid capacity constraints through regression and random forest models
- Map, visualize, and interpret cleaned data; synthesize findings in technical documentation and public presentation

Ants, Plants, and Isotopes: Investigating the Trophic Levels of the Guánica Dry Forest

Earth & Environmental Sciences Senior Capstone Project, Wesleyan University (9/24—3/25)

- Determined trophic level of 5 different ant species through isotope analysis, using methods from literature
- Led group's data analysis efforts, using R to explore differences between ecological niches in Puerto Rico

PROFESSIONAL EXPERIENCE

Career Development Student Assistant, **Bren School of Environmental Science & Management** (10/25—Present)

- Research and consolidate 10+ relevant job openings weekly for the Master of Environmental Data Science cohort
- Collect, summarize, and visualize environmental data job market data using R and assemble in a [quarterly report](#)
- Support the Career Development team in programming decisions, administrative tasks, and auxiliary projects

Lab Intern, **Chernoff Lab (Bailey College of the Environment) – Wesleyan University**, Middletown, CT (9/23—5/25)

- Performed morphometric analysis on 1,000+ freshwater minnow samples using R and ImageJ software
- Organized and managed data files representing geographic populations of species
- Provided feedback on visuals and thesis presentations during weekly lab meetings

Course Assistant, **Economics Department – Wesleyan University**, Middletown, CT (9/23—5/24)

- Maintained a proficient understanding of *Microeconomic Analysis* and *Introduction to Economic Theory* material
- Used MS Excel to track the scores of 50+ students and held review sessions to go over exam concepts

Field and Lab Intern, **Harbor Watch at Earthplace**, Westport, CT (5/23—8/23)

- Collected, processed, and determined bacteria concentrations of water samples across Fairfield County, CT
- Performed data entry on bacteria concentration and marine species and created pivot tables in MS Excel
- Compiled reports regarding research findings and potential projects, such as location scouting

SKILLS

Data Science: R/RStudio (tidyverse, ggplot2, terra, sf, stars), Python (numpy, pandas, geopandas, matplotlib, xarray, scikit-learn), GitHub, SQL, Stata, econometric analysis, geospatial analysis, vector-based graphic design, R Shiny

Languages: Russian (fluent), Ukrainian (intermediate), Spanish (intermediate)

Awards: International Honor Society for Economics (10/23); UCSB Graduate Division Public Speaking Certificate (3/26)