# *Leilanie Rubinstein*

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## Education

2025 **Master of Environmental Data Science**, *Bren School of Environmental Science & Management*, University of California, Santa Barbara

2021 **B.A. in Political Science (International Relations)**

**B.A. in Environmental Studies**, University of California, Santa Barbara

## Research

Sep 2025 – Present **African land cover change and protected area impact observed in a mega-archive of historical aerial imagery**, *In Preparation*

- Developing a land cover predictions pipeline and running inference using a high performance computing system on over 640,000 historical aerial images of 18 countries in sub-Saharan Africa during the 20th century
- Generating figures, calculating summary statistics, and evaluating performance metrics for a descriptive analysis of land cover change and the impact of protected areas
- Reviewing literature on earth observation of protected areas to identify a data gap

Jan 2025 – Jun 2025 **Remote Sensing of Defensible Space Compliance to Enhance Wildfire Preparedness**, *Master's Capstone Project*

- Developed a machine learning algorithm that predicts compliance with wildfire defensible space requirements based on satellite imagery and annual compliance inspections data from the Santa Barbara County Fire Department
- Designed automated workflows for processing and matching satellite imagery chips to specific property parcels using spatial datasets, integrating satellite imagery, inspection records, and property and building datasets
- Applied unsupervised and supervised learning frameworks to predict defensible space compliance using random convolutional imagery features and environmental variables
- Collaborated with faculty on causal inference research measuring the impacts of communication interventions

Feb 2025 – Mar 2025 **Santa Barbara County Political Mapping and Voter Analysis**

- Created interactive maps and data visualizations analyzing spatial distribution of Democratic and Republican voters across Santa Barbara County using voter registration and census data
- Developed comprehensive analysis of voter demographics, party composition, and registration trends from 2000-2024, revealing partisan age differences and election-year registration spikes
- Integrated multiple data sources to create publication-quality visualizations for local political analysis, examining voter behavior patterns and geographic political distributions

## Work Experience

Sep 2025 – Present **Social Science Research Professional I**, *Global Policy Lab*, Stanford Doerr School of Sustainability, Environmental Social Sciences

- Research assistant for the Aerial History Project, tracking long-term economic development and its relationship to the environment using an archive of 1.6 million historical aerial photographs, mostly in Africa
- Conducting statistical and econometric analysis on large geospatial and remotely sensed datasets, interpreting results in collaboration with an interdisciplinary team of PIs and researchers
- Building machine learning pipelines to process and visualize data on Stanford's high performance computing cluster

Sep 2024 – Jun 2025 **Teaching Assistant**, *UCSB Department of Economics*, University of California, Santa Barbara

- Served as graduate student teaching assistant for Dr. Alan Ebenstein in economic theory and economic history courses
- Developed rubrics and clear criteria for student assessments, providing subject matter assistance to students
- Graded student research papers, midterms/finals, quizzes, and attendance

Oct 2023 – May 2024 **Habitat Restoration Field Technician**, *Channel Islands Restoration*, Santa Barbara, CA

- Remediated sites across Santa Barbara and Ventura counties, identifying and collecting field data on native and invasive plant species
- Utilized GIS applications while maintaining data integrity and quality control standards

Jan 2024 – Mar 2024 **South County Field Organizer**, *Santa Barbara County Democratic Party*, Santa Barbara, CA

- Managed campaigns for a portfolio of local and national candidates, organizing volunteers and maintaining a database of 1000+ volunteers
- Collaborated with local labor unions and progressive organizations to coordinate voter outreach efforts and build coalition support for Democratic candidates
- Developed messaging for voter registration, election turnout, and fundraising

Nov 2021 – Jan 2023 **Legal Assistant/Paralegal**, *Greben | Monroe*, Santa Barbara, CA

- Drafted and reviewed discovery requests, motions, and subpoena documents for environmental litigation cases pursuant to Clean Water Act, CERCLA, Prop 65, and Superfund sites
- Examined NEPA and CEQA review process documentation (EA/IS, FONSI, EIR/EIS) in disputes relating to water and soil pollution remediation

## Other Work Experience

2019 – Present **Freelance Photographer**, *Self-Employed*, Santa Barbara, CA

- Provided portrait, event, and graduation photography services for clients throughout Southern California, utilizing Adobe Creative Suite for professional photo editing
- Managed all aspects of photography business including client consultations, scheduling, post-processing, and delivery

Mar 2021 – Nov 2021 **Legal Intern**, *UCSB Associated Students Legal Resource Center*, Isla Vista, CA

- Conducted intake interviews for students and staff with questions regarding landlord-tenant disputes, family law, traffic citations, and misdemeanor & felony charges
- Assisted practicing attorney in researching case updates, navigating the county court website, and local or state housing laws and regulations

Sep 2019 – Feb 2020 **District Intern**, *Congressman Salud Carbajal*, Santa Barbara, CA

- Communicated with constituents, participated in policy research, and assisted with event preparation
- Collaborated with staff in resolving immigration, veterans' affairs, and environmental casework involving federal agencies on behalf of constituents

Sep 2019 – Jan 2020 **Campaign Intern**, *Das Williams for Supervisor*, Santa Barbara, CA

- Canvassed hundreds of voters in Santa Barbara County, collecting data and gauging responses to endorsements and policy positions

## Technical Skills

Languages Python, R, SQL, Bash, LaTeX, SLURM, HTML, Javascript, CSS, SCSS

### Software

Version Control Git, GitHub, Apptainer

Database BigQuery, DuckDB, SQLite

Cloud Computing Google Earth Engine, Colab, LabelBox, Google Colab

### Other

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| Graphic Design | Adobe Creative Suite, Affinity Designer, Canva, CorelDRAW |
| Computer | Microsoft Office, Mailchimp, Constant Contact, Squarespace, WordPress, PDI Online Campaign Tools |

## Languages

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| Fluent | English, Mandarin Chinese |
| Conversational | French |

## Leadership

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| 2024–2026 | **Elected Representative** – Santa Barbara County Democratic Central Committee |
| 2024–2025 | **Student-Faculty Representative** – Bren School of Environmental Science & Management |
| 2025 | **Delegate** – California Democratic State Central Committee |
| 2022–2025 | **Treasurer** – Santa Barbara Young Democrats |
| 2020–2021 | **President** – UCSB Campus Democrats |
| 2019–2020 | **Field Director** – UCSB Campus Democrats |
| 2018–2019 | **Communications Director** – UCSB Campus Democrats |

## Volunteer Experience

Oct 2024 – Dec 2024 **Graduate Peer Mentor**, *UCSB SACNAS*

- Mentored undergraduate student on applications for research positions, reviewing personal statements, application prompts, and professional development materials

Oct 2017 – Nov 2024 **Campaign Volunteer**, *Santa Barbara County Democratic Party*

- Canvassed and called voters across Santa Barbara County for dozens of Democratic candidates and progressive measures over 7+ years
- Supported campaigns at all levels including federal (Congressional), state (Senate, Assembly), county (Supervisor, Board of Education, Fire Marshall), and local (Mayor, City Council, School Board, & more) races
- Registered hundreds of student voters on and off-campus through voter registration drives and door-to-door efforts
- Deep knowledge of local politics, government processes, and coalitions through personal interactions and networking