Ethan Mathews

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EDUCATION

University of California, Santa Barbara (UCSB)   Santa Barbara, CA
Bachelor of Arts (B.A.), Environmental Studies,
Cumulative GPA: 3.97   September 2023 - June 2025

Mira Costa Community College (MC)   Cardiff, CA
Associate degree in Math and Science
Cumulative GPA: 3.937   August 2020 - June 2023

Relevant Coursework

Environmental Impact Analysis (A & B)
- Developed project descriptions, environmental settings, impact assessments, mitigation measures, and reporting plans for biological resources, in accordance with CEQA, to ensure comprehensive and defensible environmental review.
- Analyzed hypothetical development project components throughout Southern and Central California using published environmental data and personal field observations.
- Crafted concise technical reports tailored to various environmental stakeholders and planning agency standards which ensured clarity and compliance.
- Wrote a focused environmental impact report featuring biological resources that was a part of a mixed use faculty and classroom project located in an environmentally sensitive open space.
- Improved public presentation skills by crafting and responding to peer comment letters, addressing stakeholder concerns.

Data Science in Environmental Studies
- Conducted statistical analyses and data visualizations using R and RStudio to explore environmental datasets, enhancing data-driven decision-making skills and understanding of environmental research methodologies.
- Developed reproducible workflows and collaborated on code repositories through GitHub, fostering a rigorous approach to data science and improving collaborative coding practices.
- Applied statistical techniques, including hypothesis testing and regression analysis, to investigate environmental issues, strengthening the ability to draw meaningful conclusions from complex data.
- Created an HTML website as a professional academic portfolio to showcase past projects, academic progress, and future plans, leveraging Quarto and RMarkdown to enhance technical and presentation skills.

Geographic Information System (A, B, and C)
- Led a team to develop and execute multiple comprehensive GIS projects, demonstrating strong leadership and collaboration skills that resulted in successful presentations to the professors and peers.
- Applied GIS skills to research questions and spatial analysis tasks to increase proficiency in handling complex geographic problems, improving decision-making based on statistical analysis.
- Analyzed digital geographic data using algorithms and analytical procedures to enhance spatial analysis accuracy and data interpretation.
- Investigated technical GIS issues, including modeling approaches and fitting models, to optimize problem-solving in spatial data analysis and improve data handling efficiency.

Environmental Law
- Developed a foundational understanding of constitutional principles and federal environmental laws, including their ethical, cultural, and legal foundations, enhancing comprehension of environmental regulation.
- Analyzed administrative and judicial processes in environmental policy and litigation, strengthening understanding of agency roles in implementing statutes.
- Facilitated meaningful discussions with guest lecturers from various environmental agencies in the Santa Barbara area, enhancing understanding of coordination with state and federal agencies.
- Enhanced legal analysis and critical thinking skills by evaluating environmental law case studies and assessing their impact on regulatory compliance and agency decision-making.

ACADEMIC EXPERIENCE

Research Assistant to PhD Candidate Kelly Garvey, advised by Dr. Debra Perrone   March 2025-Present
- Conducted outreach to over 300 well drillers, collecting valuable data on drilling practices, pricing, and materials used, contributing to research on how drilling costs vary by county due to differing lithologies.
- Developed and applied Python coding skills using Google Colab notebooks to merge, clean, and visualize large datasets (200,000–1,000,000 observations) from the California Open Data Portal, as part of creating an interactive database.
- Collaborated with team members to review literature and refine survey questions, enhancing communication strategies with industry professionals.
- Developed proficiency in data organization and project management, streamlining outreach workflows and enhancing data collection strategies for effective engagement with key stakeholders.

WORK EXPERIENCE

Manager, Encinitas Fish Shop, Encinitas   June 2021-Present
- Displayed a show of leadership among 20 employees and always rose to the occasion, resulting in a promotion to a management position within the first year of employment.
- Prioritize customer satisfaction by managing a dynamic and high-pressure setting and achieving daily sales exceeding $25,000.
- Navigate challenging customer interactions and restaurant incidents, sharpening expertise in conflict resolution and the diplomatic management of difficult situations.
- Collaborated with management to improve team efficiency by reinforcing procedural compliance and optimizing staff performance, resulting in a reduction of labor costs from 25% to 11.5%-15%.

EXTRACURRICULAR INVOLVEMENT

Member, of Environmental Agency Board (EAB)
- United as a group to assess current environmental incidents and discuss how the organization can support various causes.
- Organized local outings to ignite community engagement to adequately convey what the organization aimed to improve while further sharing its impact with nearby communities.
- Furthered the group's local ecological knowledge, which helps the community understand ecological interactions that have benefited natural resource use.

Member, Environmental Law Club (ELC)

Member, National Ground Water Association (NGWA)

Intramural Sports (Basketball & Soccer)

SKILLS

Languages: Spanish (Intermediate)
Software: Proficient with Geographic Information Systems, Python, and R.
Technical Lab Techniques: Data analysis, technical writing, field sampling (GrayWolf particulate meter, Oakton Probe, Ion-Selective Electrode, and Colorimeter)