

CARMEN GALAZ-GARCÍA

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LinkedIn profile ◇ Environmental data science portfolio

SUMMARY

PhD candidate seeking to leverage analytic knowledge and coding experience in an interdisciplinary working group that creates and implements solutions to environmental issues.

- 5+ years of experience in mathematical research with a strong interest in ecological restoration and sustainability projects, fostered by learning about California's ecosystems from UCSB's Bren School of Environmental Science and Management.
- Experience analyzing and creating visualizations of real world environmental data using R and proficient in Python coding with a background in computer algorithms.
- Expertise in researching complex scientific topics and synthesizing important information.
- Excellent public speaking and presentation skills, both with specialized audiences and in scientific outreach. Received 2 teaching awards nominated from faculty and students for excellence in teaching.
- Effective teamwork and leadership skills developed through founding the Mathematics Directed Reading Program impacting 120+ graduate and undergraduate students.

EDUCATION

University of California, Santa Barbara

Expected Summer 2021

Ph.D. in Mathematics

- Relevant courses: Introduction to Environmental Data Science & Statistics, Advanced Data Science, Introduction to Ecological Restoration at UCSB's North Campus Open Space

Universidad de Guanajuato & Centro de Investigación en Matemáticas (CIMAT), México

June 2015

B.Sc. in Mathematics

- Study abroad semester: Uppsala University, Sweden

RESEARCH EXPERIENCE

University of California, Santa Barbara, CA

Graduate Researcher at the Mathematics Department

June 2017 - present

- Worked independently to design research projects, met advisor weekly for progress updates, met deadlines.
- Created a Python library to perform novel geometric calculations and solve research questions.
- Research has resulted in two single-authored manuscripts (one submitted for publication), 3 presentations at national conferences and research seminar invitations to MIT, Tufts U, Temple U & Arizona State U.

Student at Bren School of Environmental Science & Management

October 2020 - present

- Proficient in the use of the tidyverse R library for data wrangling, statistical analysis and visualization.
- Collaborated with a restoration expert in creating an R Shiny web app that uses eBird data to educate about the birds at North Campus Open Space, UCSB's biggest ecological restoration site.
- Assessed the fitness of statistical models for different types of real world environmental data.
- Comfortable using git and GitHub for version control, repository usage and collaboration.

University of California, Davis, CA

Summer 2014

Fulbright Scholarship, Summer Undergraduate Researcher

- Collaborated with computer scientists and mathematicians in developing geometric combinatorial tools.

SKILLS AND INTERESTS

Programming & software: Python, R, C++, LaTeX, GitHub (personal repository)

Languages: Spanish (native), English (fluent), French (intermediate)

Hobbies: Hiking, yoga, bird watching. Member of the Goleta Coast Audubon Society and the Santa Barbara Audubon Society. eBird profile.

LEADERSHIP EXPERIENCE

Mathematics Directed Reading Program (DRP), UCSB

2018-2020

Co-founder, Organizer and Mentor

- Secured funding through a successful grant application to the DRP National Network to start the UCSB's chapter.
- Coordinated the application process and selection of participants. In 2020 we received 120+ applications to participate, doubling the number of applications in 2019.
- Mentored 4 undergraduates in reading advanced mathematics and helped them design and present a poster showcasing their work.

Institute for Advanced Studies

2017-2018

Women and Mathematics Ambassador

- Obtained a grant from the Institute for Advanced Study to implement a program aimed to showcase the achievements of women in mathematics.
- Worked with a team to design and host 15 public events at the UCSB Mathematics Department. These included panels, workshops, research talks and social events.
- Managed funding and worked in close contact with administrative staff.

TEACHING EXPERIENCE

University of California, Santa Barbara, CA

Instructor of Record

Summer 2018, 2019, 2020

- Taught three calculus courses, two of them for environmental science majors. Each course had 40 students.
- Designed goals and tasks to help students master the subject and use it in the context of their majors.
- Provided grading, individual feedback and motivation to students, often through virtual platforms.
- Received *Excellence in Teaching Award Honorable Mention* from the UCSB Graduate Student Association.

Teaching Assistant

September 2015 - present

- Led review and discussion sessions for over 15 undergraduate mathematics courses, ranging from lower division courses with 100 students to specialized topics classes for small groups.
- Received the *Outstanding Teaching Assistant Award* from the UCSB Mathematics Department.

Summer Institute in Mathematics and Science, Center for Science and Engineering Partnerships, CA

Lead Mathematics Instructor

Summer 2020

- Collaborated in the design of the program's virtual mathematics courses.
- Recruited and oriented two more mathematics instructors for the SIMS program.
- Facilitated communication between the mathematics instructors and the program organizers.

VOLUNTEER

Association for Women in Mathematics, UCSB chapter

2018- 2020

- Co-organizer and instructor in a STEM outreach event for middle school students.
- Gave a one-hour workshop about geometry and combinatorics for 15 elementary school kids.
- Gave a talk about my research to 30 mathematics majors.