**Matteo Torres**

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[Website](https://matteo-torres.github.io/) | [GitHub](https://github.com/matteo-torres) | [LinkedIn](https://www.linkedin.com/in/matteo-torres-876a62234)

**EDUCATION**

**Master of Environmental Data Science (MEDS)** (Expected June 2025)

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

Highlighted Coursework:Python for Environmental Data Science, Databases and Data Management,

Machine Learning in Environmental Science, Data Visualization and Communication

Awards: Environmental Data Science Fellowship

**Bachelor of Science in Biology | Minor in Dance** (December 2023)

**College of Natural Sciences & Mathematics — California State University, Long Beach (CSULB)**

Highlighted Coursework: Conservation Biology, Population Ecology, Biostatistics, Geographic Information Science for Natural Sciences, Undergraduate Directed Research

Awards: Gulf of Maine Research Institute Research Grant, NSF Primate Population Ecology Research Grant

**DATA SCIENCE PROJECT EXPERIENCE**

**Assessing Range Shifts of Intertidal Species for Conservation at Point Conception** (1/25 – Present)

**Master’s Capstone Project |** [**Repository**](https://github.com/coastalconservation)

* Partnered with The Nature Conservancy to define project scope, deliverables, and target audiences for proposal
* Mapping intertidal species distributions along California’s coastline in 100 *km* segments to identify species with range edges near Point Conception
* Applying segmented regression and Ensemble Species Distribution Models (ESDMs) to analyze historical abundance trends for range shift framework and forecast habitat suitability under different climate change scenarios
* Building and designing an interactive Shiny web application compiling all deliverables for publication on The Nature Conservancy’s Geospatial Hub

**Thomas Fire Analysis** (12/24)

**Master’s Remote Sensing Course Project |** [**Repository**](https://github.com/matteo-torres/thomas-fire-analysis) **|** [**Blog**](https://matteo-torres.github.io/posts/2024-12-13-thomas-fire/)

* Analyzed Air Quality Index (AQI) to assess the impact of the Thomas Fire and track pollution trends
* Applied remote sensing techniques in Python, utilizing Landsat 8 raster data and NDVI to generate a false-color image of the fire scar for enhanced environmental monitoring
* Authored a technical blog post detailing data processing, code implementation, and visualization techniques

**Additional Projects:** Spotify Wrapped ([Dashboard](https://matteo-torres.shinyapps.io/shinydashboard/)), Hairy Hermit Crab Infographic ([Blog](https://matteo-torres.github.io/posts/2025-03-14-hairy-hermit-crabs/)), Biodiversity Intactness Index (BII) Change ([Repository](https://github.com/matteo-torres/bii-project)), Identifying Impacts of Extreme Weather ([Repository](https://github.com/matteo-torres/blackout-houston)), Exploring Historical Redlining ([Repository](https://github.com/matteo-torres/redlining-LA))

**EXPERIENCE**

**Research Intern (Liner Modeling) — CSULB Quantitative Ecology Lab**, Long Beach, CA (5/23 – 12/23)

* Merged and tidied demographic and cognition datasets, grouping rhesus macaques by life stage (juvenile, adult)
* Developed linear mixed-effects models (LMEs) to analyze the impact of early-life adversities (hurricane birth, inexperienced mother, sibling presence, maternal death) on social attention across life stages
* Identified lower attention spans in juveniles with maternal inexperience and presented findings using data visualizations and model outputs to highlight insights into survival and reproductive success

**Research Intern (Statistical Analysis) — NOAA Fisheries**, Silver Spring, MD (Remote)(6/21 – 8/21)

* Processed LiDAR datasets to extract Arctic cloud signals at 7 km elevation across Alaska
* Isolated extreme precipitation events and analyzed associated cloud signal elevation and thickness to assess correlations with precipitation intensity
* Created a comparative analysis of cloud signal characteristics during extreme vs. baseline precipitation periods

**SKILLS & ADDITIONAL EXPERIENCE**

**Technical:** R, Python, SQL, ArcGIS, Git/GitHub, Microsoft Office Suite, Google Workspace

**Additional Experience:** Bartender — University of California, Los Angeles Faculty Club, Los Angeles, CA (10/23 – 7/24); COPE Health Scholar — Kaiser Permanente South Bay Medical Center, Harbor City, CA (10/19 – 4/20)