# Ian Morris-Sibaja

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#### **EDUCATION**

Master of Environmental Data Science, 4.00 GPA (Expected June 2025)

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

<u>Highlighted Coursework</u>: Geospatial Analysis (in R), Data Visualization and Communication (in R) <u>Leadership/Involvement</u>: Assessing Range Shifts of Coastal Species to Inform Conservation in California's Biogeographic Transition Zones – Capstone Project (Expected June 2025)

# **Bachelor of Science in Biology** (June 2022)

University of California, Los Angeles (UCLA)

<u>Highlighted Coursework</u>: Aquatic Geomicrobiology, Ecological Modeling, Python with Applications <u>Honors/Awards</u>: Departmental Honors, Specialization in Computing

#### **TECHNICAL SKILLS**

# Data Visualization, Machine Learning, Data Preparation, Statistical Analysis

Programming: R, Python, C++, SQL (SQLite), Git/GitHub, ArcGIS

#### **EXPERIENCE**

**Associate Biologist - South Environmental**, Pasadena, CA (10/23 - 08/24)

- **Conducted precise** vegetation data collection using submeter GPS for detailed plant community mapping, ensuring accurate compilation of 210+ observations and analysis of spatial data
- **Personally protected** 10+ endangered species through active monitoring of construction sites

## Forestry Aide - California State Parks, Ventura, CA (05/23 - 09/23)

- **Designed and implemented** a reproducible workflow by cleaning and manipulating 3 years and over 1000 observations using Python in ArcGIS Fieldmaps creating surveys analyze vegetation distributions
- **Developed** a comprehensive log of 73 plant species, including location and invasive status details, to support data analysis and decision-making processes
- **Statistically estimated** an increase native groundcover by over 170% through invasive removal efforts

### **Restoration and Nursery Intern – National Park Service**, Santa Monica Mountains, CA (06/22 - 09/22)

- **Collected** field data throughout trails in the Santa Monica Mountains to identify and monitor native and invasive species in support of restoration efforts
- **Verified** the quality and accuracy of environmental data, including invasive and native plant observations, to ensure reliable results in ecological analyses

#### **PROJECTS**

# Effects of Climate Change on Flowering Phenology of Native and Invasive Californian Annual Forbs (06/22)

- **Designed and executed** a remote research project assessing the effects of climate change on the flowering phenology of native and invasive Californian annual forbs
- **Analyzed** 15,000+ flowering/climate observation by applying Python programming utilizing the GeoPandas and Pandas modules and statistical analysis

### The Effects of Climate Change on the Vernal Plants Specialist Bee Population (06/22)

- **Developed** predictive Leslie matrix models in R to simulate population dynamics to analyze the effects of climate change on vernal pool specialist bee populations
- **Concluded** in a technical write up that longer and more severe droughts hinder population recovery, while pollen availability significantly impacts recovery rate