

# LYNDSEY UMSTED

858-602-2685 • 12866 Papago Drive, Poway, CA 92064 • [lyndseyumstedwork@gmail.com](mailto:lyndseyumstedwork@gmail.com)  
<https://lyndseyumsted.github.io/> • <https://www.linkedin.com/in/lyndsey-umsted/> • <http://github.com/lyndseyumsted/>

## EDUCATION

### University of California, Santa Barbara

*Bachelor of Science, Major in Statistics and Data Science, Minor in Anthropology*

Cumulative GPA: 3.70

Santa Barbara, CA

Graduation: December 2023

### Relevant Coursework

Multivariable Calculus, Linear Algebra, Methods of Mathematical Analysis, Probability and Statistics (3 terms), Nonparametric Methods, Regression Analysis, Design of Experiments, Machine Learning, Statistical Data Science, Data Science Capstone, Time Series Analysis

## WORK EXPERIENCE

### Teaching Assistant, UCSB Children's Centers, Santa Barbara, CA

October 2023-Present

- Assist in planning and organizing curriculum activities as well as supervising groups of children in both indoor/outdoor environments.
- Follow curriculum based on developmentally appropriate practices that help each child reach his/her fullest potential in all areas of development.

### Data Analyst Intern, New Relic, Remote

May 2023-August 2023

- Developed and successfully implemented an end-to-end data pipeline that aggregates multiple data sources from public APIs to internal HR systems to evaluate the Diversity, Equity, and Inclusion (DEI) landscape across New Relic's global and cross-functional workforce.
- Designed and developed a dynamic dashboard in Looker Studio to allow end users to understand the DEI health within their organization.
- Presented to the DEI team and senior People leadership, showcasing the fully realized pipeline and dashboard, and delivering a comprehensive analysis and key areas of opportunities for New Relic.

### Undergraduate Research Intern, Earth Research Institute (ERI), Santa Barbara, CA

June 2022-September 2022

- Conducted an undergraduate research project under Dr. Andrew MacDonald funded by the National Science Foundation at UC Santa Barbara.
- Performed exploratory data analysis and modeling on 11 abiotic, socio-economic, and land-use variables and their impact on the transmission rates of the neglected tropical disease, leishmaniasis, in the Amazon Basin using R programming and Google Earth Engine for satellite imagery.
- Deployed machine learning techniques and time series forecasting to predict 10-year future risk patterns of cutaneous leishmaniasis and identified a stacked classification model with 85% accuracy.
- Collaborated with multiple stakeholders including a peer undergraduate intern, research assistants, and faculty, expanding my written and oral communication proficiency of analysis work and deliverables through a written report and finalized poster.

### Math and Statistics Tutor, Alumni Tutoring, Remote

October 2020-June 2021

- Tutored struggling virtual students in algebra and Advanced Placement Statistics through student-centered studying techniques.
- Assessed and tracked students' progress through test and quiz feedback as well as students' understanding within session meetings.

## RESEARCH & PROJECTS

### Forecasting US Unemployment Rate in the Absence of the Covid-19 Pandemic | R, GitHub, MS Excel

November 2023-December 2023

- Independent time series analysis and forecasting project on the United States' unemployment rate that exemplifies the impact the anomalous Covid-19 pandemic had on the economy and unemployment.
- Identified and validated appropriate Seasonal Autoregressive Integrated Moving Average model to predict unemployment rate into the years 2020 through 2023 by using the years 2010-2019 for training and testing.

### Movement Data Science Lab Capstone Project at UC, Santa Barbara | Python, PyCharm, R, GitHub, MS Excel

January 2023-June 2023

- Collaborative case study utilizing large and multi-sourced mobility data sets to investigate changes in movement patterns in associations with wildfire events in California with applied spatial data science and machine learning techniques to identify changes in mobility time series.
- Collaborated with multiple stakeholders to discuss project goals, deadlines, and present key deliverables.
- Presented project output and results at the UCSB Data Science Capstone Showcase as well as the KDD Data Science Day in Long Beach, CA.
- Co-authored the abstract Understanding and Modeling Human Mobility Response to California Wildfires for *Proceedings of KDD '23 Southern California Data Science Day*

### Machine Learning Modeling of Covid-19 Risk in California | R, GitHub, MS Excel

September 2022-December 2022

- Independent research on the key predictor variables for Covid-19 outbreak risk in California populations during the year 2020.
- Deployed nine machine learning models in R package Tidymodels to identify the best classification model with AUC value just under 0.90 which accurately predicts the risk of Covid-19 outbreaks in a population based on demographics, pollution levels, and health data.
- Finalized report and presentation of exploratory analysis and key deliverables to communicate research and model results.

### Co-Author for the Bicycle Coalition for Social Equity and Decision-Making | R, MS Excel, MS Word

January 2022-June 2022

- Documented and discussed the characteristics of over 500 bicyclists on the Pacific Coast Bike Route in Santa Barbara to understand and interpret bicycling trends on this route under the direction of Dr. Daniel Fishbein.
- Co-authored article in the Santa Barbara Independent providing data analysis, visualizations, and discussion of the bicyclist trend and its relation to the environment and public health of Santa Barbara County.

## SKILLS

**Programming Languages:** R, Python, SQL, JavaScript

**Programming Packages and Skills:** OpenAI, GPT, Pandas, Numpy, Scikit-learn, Tidyverse, Tidymodels

**Professional Software:** GitHub, GitLab, Asana, MS Excel, MS Word, G-Suite, Looker Studio, RStudio Workbench, Slack

**Professional Skills:** Data Visualization, Data Analysis, Data Engineering, Collaborative and Independent Research, Report Writing, Leadership

## ASSOCIATIONS AND VOLUNTEER WORK

### UCSB Data Science Capstone: Student

- Completed a year-long data science capstone project for the Movement Data Science Lab at UC Santa Barbara.

### UCSB Greeks Go Green Organization: Green Certification Committee Intern

- Certified the first chapter house, Kappa Alpha Theta, as a Green-Certified building in the state of California.
- Help manage the Green-Certification process of 17 different Greek Chapter houses and promote sustainable efforts for over 1,000 members of the Greek community.

### Delta Gamma Fraternity: Director of Primary Recruitment, Recruitment Counselor, and Peer Facilitator

- Guide and facilitate members through social responsibility, substance abuse, and diversity, equity, and inclusion workshops.
- Direct and lead the chapter through the primary recruitment process for the year 2023.