

# ALEXANDRA RIVERA

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## EDUCATION

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**The University of Texas at Austin** | Austin, TX

October 2022

*Bachelor of Science, Computational Biology - Certificate in Applied Statistical Modeling*

Awards: Presidential Scholars Program Scholarship Recipient

Relevant coursework: Data Visualization, Bioinformatics, Elements of Programming

## SKILLS

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**Technical Skills:** Intermediate R Studio, Beginner Python 3, Intermediate Microsoft Excel

**Languages:** Native English, Conversational Spanish

## PROJECTS

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**DATA SCIENCE RETENTION:** Explored a Kaggle dataset with data science applicant information using dplyr to tidy, select, arrange, mutate, create summary statistics, utilize ggplot, find pairwise relationships, and run tests to discover possible reasonings for people leaving the data science field

**PYTHON PENGUINS:** Explored the Penguins dataset to become familiar with Python 3 tools by filtering, observing, comparing, and counting variables to visualize interactions among species using numpy, pandas, and seaborn to visualize frequency of flipper lengths among species

**THEOPHYLLINE KINETICS:** Explored the Theoph dataset in R, which observed the kinetics of the anti-asthmatic drug theophylline, through performing exploratory data analysis using MANOVA, a randomization test, and linear regression to find trends within the dataset

## EXPERIENCE

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**URBAN ECOSYSTEMS STREAM** | Austin, TX

January 2019 - May 2022

*Research Assistant*

- Performed exploratory data analysis using the Pirates dataset in R Studio to develop a research project using data mining techniques
- Analyzed excitation and emission plots and a calibration curve regression model comparing known fluoranthene concentrations with diluted samples using Microsoft Excel for source tracking Polycyclic Aromatic Hydrocarbons (PAHs)

**TEXAS HEALTH AND HUMAN SERVICES** | Remote

August 2021 - December 2021

*Data Analysis Intern*

- Analyzed financial information submitted by Grantees during fiscal compliance reviews by working with Microsoft Excel to develop standard testing procedures to identify areas of risk
- Examined records of entities receiving federal and/or state funds through the Department of State Health Services to ensure that costs being charged are in accordance with federal/state requirements

## COMMUNITY INVOLVEMENT

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**UT OXFORD PROJECT** | Remote

September 2021 - November 2021

- Filled in Oxford Covid-19 Government Response Tracker (OxCGRT) database in order to link epidemiological variables and vaccine coverage data to policies to understand the promises and peril of data analysis

**ALPHA KAPPA DELTA PHI SORORITY** | Austin, TX

January 2021

*Service Chair*

- Organized various service events for 40 sorority members to attend, including writing 95 supportive letters for the elderly, mentoring high school students on core subjects, and scheduling blood donations