# LOGAN O'BRIEN

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### **EDUCATION**

#### **University of Wisconsin-Madison**

Madison, WI

Bachelor of Science May 2022

Major: Data Science | Minor: Computer Science

**GPA:** 3.557 / 4.000

Honors: Dean's List-Spring 2020, Fall 2020

Relevant Coursework: Data Programming I & II(CS 220, 320), Data Modeling I & II(STAT 240, 340), Database Design(LIS 464), Machine Learning(STAT 451, CS 532), R For Statistics I, II & III(STAT 303, 304, 305), Data Visualization(STAT 479, CS 639)

### **EXPERIENCE**

Millennium Geospatial Madison, WI

Geospatial Engineering Intern

Jan 2021 - Dec 2021

- Leveraged data to develop fiber optic cable networks that were both cost-efficient and construction-efficient
- Wrote a tool implementing a tree structure to repetitively map and label nodes connected via fiber optic cable
- · Handled and worked with geospatial data on various projects, creating project summary reports for clients

# **University of Wisconsin-Madison Athletics**

Madison, WI

Member of Wisconsin Badgers Football Team

Jun 2019 - Sep 2020

- Committed approximately 30-40 hours per week to meetings, training, film study, and competitions
- Developed a strong work ethic, found ways to persevere through adversity, and learned the importance of being coachable
- Dedicated myself to a goal-oriented team reliant on each member to be disciplined and hold each other accountable

#### **PROJECTS**

### **Predicting Airbnb Listing Prices**

Madison, WI

Python, Scikit-Learn, pandas, NumPy, Matplotlib

Dec 2021

- Cleaned features into a dataset with less noise, composed of mostly binary transformations via one-hot encoding
- Tuned hyperparameters of kNN, Gradient Boosting, and Regression models to select a final model based on model accuracy
- Evaluated hyperparameters with Grid Search CV, eventually achieving a tuned LightGBM model with 61.64% accuracy.

### **NFL Offense Efficiency Analysis**

Madison, WI

*R, tidyverse, ggplot2* 

May 2021

- Formulated a thesis regarding several factors that may be correlated with the success(total points scored), of NFL offenses
- Manipulated a large NFL play by play dataset requiring extensive cleaning to examine the factors of successful NFL offenses
- · Performed multiple regression analysis to determine the accuracy of the thesis, discussing the findings and shortfalls in detail

# **SKILLS**

## **Technical Skills**

- Programming: Python, R Programming, SQL, Java, HTML, D3.js
- Tools: Scikit-Learn, Tableau, NumPy, Pandas, Matplotlib, GGPlot2, Git/Version Control
- Other: Data Visualization, Statistical Modeling, Data Structures, Machine Learning

#### **Interpersonal Skills**

Leadership, Communication, Strategic Planning, Problem Solving, Critical/Creative Thinking, Presentation Skills