Nayan James Jani

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EDUCATION

University of Massachusetts Amherst, Amherst, MA. Expected January 2024
Masters Concentration: Data Analytics and Computational Social Science
Current GPA: 3.89
Relevant Courses: Regression Models, Advanced Quantitative Methods, Data-Driven Storytelling

University of Rhode Island, Kingston, RI. May 2022
Bachelor of Science Concentration: Data Science
Final GPA: 3.52
Relevant Courses: Machine Learning, Multivariate Statistical Learning, Big Data Analysis

SKILLS

General Skills: Data Analysis, Machine Learning, Data Visualization, Data Storytelling, Data Cleaning, NLP
Tools & Software: Python (Pandas, Sci-kit learn, Numpy, Scipy, Matplotlib), R (tidyverse, ggplot2), SQL

ACADEMIC EXPERIENCE

Identifying Sources of Poor Nutrition for Americans, Amherst, MA July-August 2023
Project Owner

- Analyzed the impact of food sources on food consumption and nutrient intakes for different ages and income levels using 2017-18 data from the U.S. Department of Agriculture.
- Created multiple charts that visualized the 3 way associations between food source, demographics and food/nutrient density using ggplot2 in R.
- Discovered that adults and seniors were consuming more cholesterol at restaurants than at home, low and middle income individuals had lower intakes of protein at home than away from home.
- Cleaned and combined datasets using the tidyverse package in R in order to produce visualizations.
- Explained methods and results using language that a non-technical audience could understand in a 29 page report.

NBA Salary Prediction, Amherst, MA February-May 2023
Project Owner

- Developed and tested 4 machine learning models using different regression methods to explore which one performs the best at predicting NBA players' salaries using R and Python.
- Found that Random Forest performed the best out of all methods, yielding a low RMSLE of 0.50.
- Pre-processed and wrangled data into a suitable format for the ML models.
- Tuned hyperparameters for each model using GridSearchCV with 5 folds to control for overfitting.
- Presented my work at my program's research symposium in front of faculty and peers.

Goals in Soccer Regression Models Project, Amherst, MA November-December 2022
Team Member

- Investigated the difference in total goals across Europe's top 5 soccer leagues using team data from the 2021-22 season to understand if the type of league determines the number of goals per season.
- Developed a Quasi-Poisson regression model with 9 predictors using R with 3 student colleagues.
- Concluded that there was a significant difference in goals between Bundesliga and other leagues.
- Handled the selection of predictors by creating and analyzing a scatter-plot matrix using GGally.
- Coordinated weekly group discussions with team members on Zoom and in person.

LEADERSHIP EXPERIENCE

Westford Academy Spring Recreational Basketball, Westford, MA Spring 2018
Youth Basketball Coach/League Co-Director

- Successfully organized and operated a high school spring league consisting of 80 players with 3 student colleagues for the Westford Youth Association as part of my senior year internship.
- Raised over $800 for the Westford Academy Girls Basketball Program.
- Coordinated scheduling of refereeing staff, online sign-up, and jersey purchases.