Alberto Calabrese

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EDUCATION

University of Padua — Padua, Italy
Master's in Data Science — *Oct. 2023 – Present*

Alma Mater Studiorum - University of Bologna — Bologna, Italy
Bachelor's in Statistics, Finance, and Insurance — *Sep. 2019 – Oct. 2022*
- Thesis: *Statistical Analysis of the Italian Sports Market*

EXPERIENCE

Data Analyst — Research and Analysis Supervisor — April 2022 – November 2023
Sport Business Lab Consultancy — *Rome, Italy*
- Supervised and managed the research and analysis team, coordinating both internal and external projects.
- Developed and monitored projects assigned to interns, providing ongoing training and support.
- Completed data analysis projects in the sports and geospatial fields using advanced Data Analysis techniques.
- Collaborated with clients to understand their needs, presenting tailored solutions, and ensuring high customer satisfaction.

PROJECTS

Estimating Calories in Starbucks Drinks: A Predictive Approach | *R, RMarkdown*   April 2024 – June 2024
- Collaborated with a team to analyze the Starbucks Beverage Components dataset from Kaggle and develop predictive models for calorie estimation.
- Conducted data cleaning, feature engineering, and data visualization (barplots, scatterplots, boxplots) to explore relationships between variables.
- Built and evaluated regression models (Linear, Lasso, Ridge) and assessed their performance using cross-validation and error metrics.
- Implemented classification models such as Logistic Regression and LDA to explore categorical outcomes.
- Delivered results through an RMarkdown report with model comparison and recommendations.

Multi-class Logistic Regression with Gradient Descent Optimization | *Python*   April 2024 – May 2024
- Developed and implemented Gradient Descent (GD) and Block Coordinate Gradient Descent (BCGD) to optimize a multi-class logistic regression model.
- Tested algorithms on synthetic datasets and the Optical Recognition of Handwritten Digits dataset, achieving a 93.15% accuracy with BCGD Gauss-Southwell.
- Improved optimization efficiency, reducing time by half compared to standard GD, and analyzed algorithm performance using cost function and gradient metrics.
- Documented findings in a report, detailing the derivation of gradients and comparing algorithm performance.

TECHNICAL SKILLS

Languages: Python, R, SQL
Developer Tools: GitHub, RStudio, Jupyter, Visual Studio Code, Anaconda, Spyder, Google Colab
Python Libraries: NumPy, pandas, scikit-learn, Matplotlib, TensorFlow, Keras, torch
R Libraries: tidyverse, shiny, plotly, sf, giscoR, rnaturalearth, gganimate
Hard skills: Data Analysis, Machine Learning, Deep Learning, Statistical Analysis, Data Visualization, Geospatial Analysis

SOFT SKILLS

Languages: Italian, English (B2)
Teamwork: Successfully collaborated with cross-functional teams on research and data analysis projects.
Communication: Presented technical findings clearly in both academic settings and client-facing environments.
Problem-Solving: Applied critical thinking and analytical skills to overcome complex challenges in data analysis.
Time Management: Effectively balanced academic responsibilities and work deadlines, delivering projects on time.
Adaptability: Quickly adapted to new tools, technologies, and project requirements in dynamic environments.