Allison Lynn

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Professional Summary

- Data scientist with strong foundation in statistical modeling and mathematics, committed to leveraging data-driven insights for impactful solutions. Over two years of programming experience, with a passion for exploring data through analytical strategies, visualization techniques, and machine/deep learning methods.

Education

The University of California Los Angeles, BS in Statistics and Data Science   Sept 2022 – June 2026

- GPA: 3.75/4.0
- **Coursework:** Data Analysis and Regression, Probability Theory, Design and Analysis of Experiments, Mathematical Statistics, Calculus of Several Variables, Linear Algebra, Programming in R, Programming in C++, Programming in Python, Statistical Models and Data Mining, Linear Models, Computational Statistics with R

Experience

Data Strategy Intern, Ryan, LLC – Los Angeles, CA   June 2024 – Aug 2024

- Collaborated with technology leaders under Agile methodologies to enhance machine learning models utilizing PyTorch and TensorFlow.
- Streamlined data solutions and enhanced processing capabilities using large language models.
- Developed and optimized Python scripts for comprehensive data analysis and visualization.
- Crafted SQL queries to efficiently manage and maintain data warehouses in Databricks, contributing to the implementation of a data lake storage solution.

Calculus Tutor, Unlimited Tutoring – San Diego, CA   April 2023 – June 2024

- Conducted tutoring sessions for high school and university calculus courses.
- Leveraged extensive mathematics knowledge and strong communication skills to provide one-on-one tutoring.

Projects

Predicting ICU Length of Stay   ICU-Stay-Prediction

- Applied Natural Language Processing (NLP) to predict ICU length of stay, utilizing BioBERT embeddings and training Random Forest models to capture complex patterns while using LASSO to reduce overfitting.

NBA Analysis: Predicting Game Outcomes and Player Salaries   NBA-Analysis

- Developed a classification model in Python to predict NBA game outcomes, achieving **93.87%** accuracy through feature engineering (rolling averages, weighted stats) and feature selection with Linear SVC.
- Trained Random Forest and Gradient Boosting models on engineered and selected features.
- Applied linear regression in R to model and predict NBA player salaries, identifying key performance metrics.

Predicting Heart Failure with LDA   Heart-Failure

- Applied Linear Discriminant Analysis (LDA) with **83.33**% accuracy, validating model assumptions and confirming a primarily linear relationship between significant predictors and heart failure.
- Utilized LASSO regression for feature selection, simplifying the model while maintaining predictive accuracy.

Skills

Data Science: Statistical modeling (Logistic regression / LDA / QDA), Machine learning (Random Forest / Gradient Boosting / Lasso / Ridge / Linear SVC / Kernel SVM), Data Visualization, Experimental Design, Data Mining, Exploratory Data Analysis (EDA), LLM, Bias-Variance trade-off, Neural networks

Languages: Python (Pandas/Matplotlib/PyTorch/Sklearn), R, SQL

Mathematics: Calculus, Linear Algebra, Probability Theory, Optimization

Data Engineering: Extract Transform Load (ETL), Databricks, Azure DevOps, Excel