Muhammad Umer Tahir

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EDUCATION

Rhodes College, Memphis, TN, Bachelor of Science, Expected Graduation: May 2026

- GPA:3.5
- Honors and Awards: Dean's list
- **Skills:** Machine Learning, Sci-kit learn, JAVA, Python, HTML, R, SQL, Tableau, Power BI, Matplotlib, Office, Seaborn, Data Analysis, Data Cleaning, Excel, TensorFlow, C, Unity
- Relevant Courses: Machine learning, Data structures and Algorithm, Object Oriented Programming, Discrete Math, Computer Systems, VE Interaction, Data Visualization, Linear Regression

WORK EXPERIENCE

Data Analysts Summer Fellowship, Memphis, TN, May 2024- September 2024

- Applied supervised machine learning algorithms using scikit-learn (KNN, Decision Tree, Ensemble Methods) to analyze financial datasets for Rhodes College Statistics Department.
- Designed and optimized Python machine learning pipelines, improving data processing time by 20%.
- Developed stock classification and regression models (Random Forest, Linear Regression, Neural Networks) that increased stock price prediction accuracy by 10%.
- Delivered technical presentations on machine learning algorithms, training 10+ peers and professors, and introduced TensorFlow for advanced neural network modeling.

Rhodes College Rhok- SAT CubeSat Research Project, Memphis, TN, April 2023-August 2023

- Developed a Python program using the KISS port library, enhancing satellite data frame retrieval by 30% in partnership with NASA.
- Built a dynamic telemetry dashboard with Plotly and Matplotlib, enhancing real-time data visualization and analysis.

PROJECTS

California House Predictor, June 2024

https://github.com/umer0335/California-house-price-predictor

- Built a user-friendly Streamlit web app that allows users to predict house prices based on input features, achieving 81% prediction accuracy in the California real estate market.
- Implemented and evaluated machine learning models (Decision Tree, Random Forest) to determine the best model for prediction.
- Conducted feature engineering (bedroom ratio, household rooms) to improve model interpretability, increasing model accuracy by 10% compared to the initial model.
- Enhanced data preprocessing techniques, handling missing values and scaling features

Rhodes College Admissions Department, Student Enrollment Predictor, May 2024 https://github.com/umer0335/College-student-enrollment-predictor-

- Developed a machine learning model to predict student enrollment likelihood, improving decision accuracy for the admissions office by 12%.
- Performed comprehensive data cleaning and preprocessing using Python and Pandas, reducing data inconsistencies by 30%.
- Tested multiple algorithms (KNN, Decision Tree, Gradient Boosting) and selected Random Forest for optimal performance, achieving 85% prediction accuracy.
- Created a dynamic private web portal for the Rhodes College Admissions Office, enabling real-time enrollment predictions and boosting user engagement by 10%.