Tej Gangupantula

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EDUCATION

University of California, Santa Barbara |Statistics and Data Science, B.S. GPA: 3.55/4.0

Relevant Coursework: Intermediate Python, Data Science with R/SQL, Linear Algebra, Probability and Statistics, Data Retrieval and Analysis, Regression Analysis

EXPERIENCE

Machine Learning Intern - FusionCare AI Jul 2024 - Sep 2024

- Designed and optimized a Gen AI-powered application in Python to analyze patient notes from a medical practice, producing detailed visit summaries, tracking patient outcomes, and evaluating the effectiveness of care plans to enhance obesity care management.
- Developed and deployed predictive models using scikit-learn and random forest algorithms, achieving 80-85% accuracy in forecasting patient outcomes, thereby improving data-driven decision-making in healthcare.
- Partnered with cross-functional teams to integrate advanced GPT models, enhancing the efficiency and scalability of healthcare solutions in a dynamic startup environment.

Concessions Event Staff - UC Santa Barbara Campus Concessions Feb 2024 - Present

- Collaborated with the Event Staff to deliver high-quality food service to guests at various on-campus events (athletic events, tournaments, concerts).
- Ensured smooth operations in a fast-paced environment, demonstrating strong problem-solving and multitasking skills.

Web Development Intern - Modesto City Schools District Nov 2022 - May 2023

- Utilized HTML and JavaScript to design and build an interactive website for 8th graders to explore various career and industry pathways.
- Effectively designed and implemented a technology solution that addressed complex educational needs, resulting in a 30% increase in student engagement and fostering a more interactive learning experience.

PROJECTS

Brain Tumor Classification

- Developed a Convolutional Neural Network model using TensorFlow and Keras to classify brain tumors (glioma, meningioma, pituitary tumor, no tumor) with 95% accuracy on test data, leveraging a dataset of 7,000+ MRI scans.
- Implemented data preprocessing and augmentation techniques (rotation, flipping, brightness adjustment) to improve model performance and ensure robust predictions; visualized results using matplotlib, scikit-learn and seaborn.
- Demonstrated potential to revolutionize diagnostics by enabling early, accurate, and accessible AI-powered brain tumor classification, supporting personalized care and improved patient outcomes.

NBA Finals Outcome Prediction Analysis

- Developed a Random Forest classification model in Python to simulate and predict 2025 NBA Finals outcomes, achieving 62% test accuracy using team-level regular season and playoff metrics.
- Engineered a Monte Carlo simulation to estimate championship probabilities over a best-of-seven series, predicting a 75.5% chance of the Oklahoma City Thunder winning against the Indiana Pacers (24.5%).
- Cleaned, processed, and analyzed historical NBA data with pandas, numpy, and scikit-learn, enabling interpretable model outputs and supporting data-driven sports analytics.

TECHNICAL SKILLS

Languages: Python, R, SQL, Java, Javascript, HTML

Libraries/Frameworks: Scikit-Learn, Tensorflow, Keras, Pandas, Numpy, Matplotlib, Seaborn, Streamlit, OpenaiAPI, Langchain, Django

Tools: Git, Tableau