Pranav Rajaram

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EDUCATION

University of California, San Diego   La Jolla, CA
Bachelor of Science, Data Science   09/2023 - 06/2027
- GPA: 4.0/4.0
- Instructional Assistant: Supported 1,000+ students in Principles of Data Science course by resolving 750+ tickets regarding pandas and statistical inference. Achieved a 100% recommendation rate across multiple course offerings.
- Research Assistant: Analyzed historical commodity pricing data with PCA and cointegration testing, uncovering long-term interdependencies that informed research on African market dynamics and policy implications.

PROFESSIONAL EXPERIENCE

Verisk
Data Science Intern   06/2025 – 08/2025
- Built a multi-agent RAG workflow with LangChain to simulate legal processes for casualty claims, reducing research time by 40% and improving consistency in settlement evaluation. Deployed as chatbot to Hugging Face spaces.
- Developed an NLP evaluation pipeline (keyword overlap, semantic similarity) to evaluate agent responses, improving accuracy of legal document alignment scoring and reducing reliance on manual review.
- Implemented Monte Carlo simulations to model distributions of claim settlement outcomes, enhancing risk evaluation and leading to more precise premium-setting strategies.

ShotQuality
Data Science Intern   07/2024 – 12/2024
- Utilized Python and SQL to perform rigorous quality checks and validation of basketball tracking data, leading to a 20% improvement in data accuracy and reliability for shot probability models.
- Enhanced on-court player detection with bounding box refinement using PyTorch, improving tracking accuracy by 15% and enabling new player movement insights.
- Created and deployed a dynamic R Shiny dashboard, allowing clients to monitor data quality issues in real time.

Agentman
Software Engineering Intern   06/2024 – 09/2024
- Launched Generative AI customer support agents for Shopify and WordPress stores, streamlining order placement, product discovery, and tracking for thousands of end-users, reducing support tickets by 30%.
- Fine-tuned an LLM to dynamically generate React UI components and integrated Anthropic prompt caching, cutting component creation latency by 25%.
- Deployed Flask microservices to Google Cloud, leveraging Docker containerization to reduce deployment setup time and ensure reliable scaling.

PROJECTS

SMT Data Challenge (Finalist)
https://pranavrajaram.com/smt-data-challenge.pdf
- Developed a machine learning pipeline on MiLB tracking data to model baserunning with logistic regression and optimize cutoff play decisions with a Random Forest classifier, visualized through an interactive dashboard.

NFL Big Data Bowl
https://www.kaggle.com/code/pranavrajaram/wrap-up-a-look-at-nfl-tackle-probabilities
- Utilized XGBoost to model NFL tracking data, assigning tackle probabilities to plays to develop a new "Tackle Rate over Expectation" metric. Commended for quality of visualizations and animations by NFL analytics departments.

NFL Wordle Game
https://drakemayedle.pranavrajaram.com/
- Architected and deployed a full stack NFL Wordle style game using TypeScript (Next.js) and Python (FastAPI), featuring stateless multiplayer session handling and a read only SQLite data layer.

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, SQL, R, Go

Frameworks & Libraries: PyTorch, TensorFlow, LangChain, Flask, Next.js, React, pandas, scikit-learn, Dask, Spark

Tools & Platforms: Git, Docker, Kubernetes, AWS, PostgreSQL, MongoDB, Snowflake, Databricks, Tableau