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Sanjana Pendharkar

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Objective

Ambitious, driven full-stack data scientist with 3 years of experience building end-to-end data solutions and machine learning pipelines aligning with business objectives. Seeking a data scientist role to apply advanced statistical modeling, and cross-functional collaboration skills to develop strategic, data driven products. Open to relocating anywhere in the US.

Work Experience

MITRE – R&D Nonprofit Operating 6 Federally Funded Research and Development Centers (FFRDCs)

Intermediate Data Scientist   **Dec. 2021 – Apr. 2025**

- Analyzed complex datasets and delivered actionable insights by evaluating a Retrieval Augmented Generation (RAG) pipeline for US DoD decision-making, achieving 15% improvement in model accuracy.
- Designed and developed *Septar*, an AI trust measurement platform with comprehensive data collection architecture using Flask/PostgreSQL, enabling systematic analysis of user behavior patterns and trust metrics.
- Collaborated cross-functionally with stakeholders to translate complex analytical findings into business value, delivering 5 data-driven presentations that secured 2 strategic partnerships.
- Tools: Python, SQL, JavaScript | Flask, PostgreSQL | Docker, AWS | Statistical Analysis, ML Evaluation

Lead Researcher, "The Third Eye"   **Jan. 2023 – Dec. 2023**

- Conducted comprehensive market research and data analysis across 55+ academic papers and 20+ industry solutions to identify key performance gaps, securing $95,000 in funding (15% acceptance rate).
- Designed machine learning experiments to optimize computer vision models for accessibility applications, implementing performance monitoring using Swift UI, Core ML and ARKit frameworks.
- Achieved 98% model accuracy through statistical analysis of Hugging Face Transformers, developing custom confusion matrix visualizations to measure and communicate model performance improvements.
- Translated complex analytical findings into actionable insights through 2 manuscript submissions, effectively communicating technical results to academic and industry stakeholders.
- Tools: Python, PyTorch, Hugging Face | Swift, Core ML | Statistical Analysis, Computer Vision, NLP

Loyal For Dogs – Series A Biotech; First FDA Approved Drug for Dog Longevity

Data Science Intern   **Aug. 2021 – Dec. 2021**

- Analyzed user behavior data and optimized system performance by contributing to production web application development using TypeScript, React, and GraphQL, achieving 15% runtime improvement and supporting data collection from 1,000+ active users.
- Conducted independent research using machine learning models (ResNet, AlexNet) and dimensionality reduction techniques (PCA) to develop computer vision algorithms for canine emotion detection.
- Tools: Python, PyTorch | TypeScript, React, GraphQL | Statistical Analysis, Computer Vision

Education

Rutgers University, New Brunswick   **Sept. 2017 – Aug. 2022**

B.Sc. Computer Science (Honors); Minors in Math & Biology   *GPA: 3.7/4.0*

Awards: Innovation Award, NSF CSGrad4US Fellowship (Full funding for 3 years of graduate studies in Computer Science)

Technical Skills

- Languages: Python, SQL, Swift, JavaScript, TypeScript, HTML/CSS, Java, C
- Technologies: PyTorch, TensorFlow, Hugging Face, React, Git, GraphQL, MongoDB