Nagraj Deshmukh

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Skills

Languages: Python (pandas, pyspark, nltk, fastapi), SQL (MySQL, PostgreSQL, SQL Server), NoSQL, R, Typescript
Tools and Technologies: Git, AWS, Microsoft Azure, Databricks, REST APIs, Pytorch, Docker, Tableau, Jira, Excel
Certifications: AWS Certified Cloud Practitioner, INFORMS Associate Certified Analytics Professional (aCAP)
Core Competencies: Machine Learning, Applied AI in Business, Statistics, Data Visualisation, Stakeholder Management

Experience

Data Scientist, Alliant Credit Union – Chicago, IL   February 2025 – Present
- Led LLM-driven NPS and call analytics pipelines - sentiment, topic modeling, summarization - identifying key customer pain points; insights drove product and content fixes, contributing to a 12% YoY reduction in member care calls
- Identified Foundry model retirements and led migration, preventing downstream production failures in AI projects
- Built Next Best Product framework using propensity modeling; productionized daily Databricks pipelines for personalized marketing activation; winner of Alliant innovation challenge for an underwriting project idea

AI Engineer, Nedl Labs – Dallas, TX (Remote)   September 2024 – February 2025
- Developed a robust ETL copilot with advanced transformer models to extract unstructured data from financial reports, enhancing data accessibility and repair efficiency by 70% for high-volume data processing across enterprises

AI Engineer Intern, Prediction Guard – Lafayette, IN   January 2024 – April 2024
- Built an autonomous LLM-powered marketing agent for real-time trend detection and content generation, increasing engagement by 25%; paper published and presented at the 20th International Conference on Data Science.

Data Scientist, Spry Therapeutics – Pune, India   February 2022 – March 2023
- Directed a four member data science team to engineer a computer vision pipeline with MediaPipe and YOLO models for the company's Remote therapeutic monitoring tool securing a $7M funding from marquee investors
- Proposed and led movement categorization project helping product scale from 5 exercises to 400+ exercises
- Optimized pose detection models in patient-side AI, improving speed by 200% and accuracy by 65%
- Designed novel algorithms for calculating 15+ accuracy parameters of five categories of exercises; and introduced visualizations to patient reports, increasing healthcare provider satisfaction by 23%

Software Engineer, Societe Generale – Bengaluru, India   August 2020 – October 2021
- Analyzed and mitigated security vulnerabilities, achieving OWASP compliance; led the Risk team in multinational disaster recovery efforts, elevating Credit Risk application to its highest security level, serving 1100+ end-clients
- Revitalized a stalled migration project by managing ETL processes for C++ and Java versions on separate servers, using Oracle SQL for root cause analysis to resolve discrepancies and optimize critical business alert efficiency

Research Intern, RAMAN Lab – Jaipur, India   July 2019 – May 2020
- Developed novel metaheuristic optimization algorithms and published two research papers with 60+ citations in reputed peer-reviewed journals - Evolutionary Intelligence (Springer) and Knowledge Based Systems (Elsevier)

Projects

Multimodal Search Engine | OpenAI CLIP, Pinecone, Python, Streamlit
Boosting AirBnb Host Profits | K-Means clustering, Regression, Decision Trees, XGBoost, Hypothesis Testing
GAP Inc's Big Data Strategy | Azure AI, Sentiment Analysis, Tableau, Selenium, Beautiful Soup

Education

Purdue University – MS in Business Analytics and Information Management (STEM)   August 2024
- Inducted into Beta Gamma Sigma Society for academic excellence and being in top 15% of cohort

Malaviya National Institute of Technology (NIT) Jaipur – BTech in Electrical Engineering   May 2020