

POURNAMI PRAKASH

St. Louis, MO | Open to Relocation

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Data Scientist | Machine Learning, Analytics, and Data Engineering | Python, SQL

EXPERIENCE

UR Health Lab - University of Rochester Medical Center

Jun. 2025 – Oct. 2025

Research Assistant (Data Science & Applied ML)

Rochester, NY

- Built longitudinal patient cohorts combining structured EHR data with Doppler ultrasound measures (14K+ imaging studies) to support disease progression analysis and cohort-based clinical research.
- Used SQL joins across encounters, imaging exams, and clinical records to define cohort inclusion logic and implement validation checks ensuring analytical reliability.
- Integrated structured clinical variables with unstructured clinical notes and developed reproducible Python ML pipelines with experiment tracking to support scalable clinical research workflows.

University of Rochester IT - Business Intelligence & Data Warehousing

Jun. 2025 – Dec. 2025

Data Science Intern

Rochester, NY

- Used SQL and Python to integrate 100K+ records from Workday, Blackboard, and Oracle into analysis-ready datasets supporting institutional analytics and reporting workflows.
- Built predictive and descriptive analytics to identify early risk patterns in student outcomes and operational processes.
- Developed ETL pipelines and applied text embeddings and clustering to HR support ticket data to identify recurring issue categories and backlog aging trends.

Butler/Till - Marketing Analytics Client Capstone

Sept. 2025 – Dec. 2025

Data Science Consultant

Rochester, NY

- Analyzed marketing performance across 188 DMAs using geographic and longitudinal segmentation to identify key drivers of campaign effectiveness.
- Built regression models and forecasting scenarios to evaluate channel impact and support data-driven marketing planning and budget allocation decisions.

EY Global Delivery Services

Aug. 2022 – Jul. 2024

Software Engineer

Kerala, India

- Supported analytics and automation workflows for enterprise e-commerce and insurance environments, contributing to scalable and repeatable data-driven systems.
- Developed Python-based validation and monitoring utilities to reduce manual review effort and improve consistency across recurring checks.
- Contributed to analytics components including classification pipelines and forecasting modules used for operational trend analysis.

TECHNICAL SKILLS

Programming: Python, SQL, R, Java

Machine Learning & Analytics: exploratory data analysis, feature engineering, predictive modeling, NLP, model evaluation

Data Engineering & Systems: ETL pipelines, Databricks, Apache Spark, Delta Lake, MLflow, Airflow

Data Domains: longitudinal data analysis, structured and unstructured datasets, validation frameworks

Visualization: Tableau, Matplotlib, Plotly

Tools: Git, Docker, Jenkins, JIRA

PROJECTS

Graph-Based Anomaly Detection in Spotify Networks | Python, PySpark, Neo4j GDS

Mar. 2025 – May 2025

- Modeled playlist-track interaction data as graph structures and engineered features to detect anomalous streaming behavior at scale.
- Applied graph-based machine learning techniques and evaluated ranking performance using Precision@10 and distributional metrics (Gini) to analyze sensitivity and false positive trade-offs.

Real-Time Multimodal Monitoring & Streaming Analytics | Spark, Databricks, Delta Lake, MLflow

Nov. 2024 – Dec. 2024

- Developed multimodal analytics pipelines combining text and image embeddings for real-time classification and monitoring.
- Built fault-tolerant Spark Structured Streaming workflows with experiment tracking and validation logic, reducing incident response lag by 35%.

EDUCATION

University of Rochester

Aug. 2024 – Dec. 2025

Master of Science, Data Science | GPA: 3.7/4

Rochester, NY

APJ Abdul Kalam Technological University

Aug. 2018 – Jun. 2022

Bachelor of Technology, Information Technology | CGPA: 8.9/10

Kerala, India