SASANK DHULIPUDI

Generative AI Engineer | Machine Learning Engineer | Data Scientist
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Professional Summary

AI/ML and data professional with 7+ years across software engineering, analytics, predictive modeling, and automation. Hands-on experience with **Generative AI, LLMs, RAG, Agentic AI, NLP, and knowledge-grounded workflows**, supported by Python, SQL, Scikit-learn, PyTorch, TensorFlow/Keras, REST APIs, ETL/ELT, and model validation. MS in Data Science from Pace University.

Technical Skills

Generative AI & LLMs: LLMs, RAG, Agentic AI, Graph-RAG, Prompt Engineering, Embeddings, Semantic Search, Vector Search, Grounding, NLP, Knowledge Graphs, LLM Evaluation, Human-in-the-Loop Review

Machine Learning & Data Science: Scikit-learn, PyTorch, TensorFlow/Keras, XGBoost, Classification, Regression, Clustering, Forecasting, Anomaly Detection, Feature Engineering, Model Selection, Model Validation

Programming & Data: Python, SQL, Java, Pandas, NumPy, REST APIs, ETL/ELT, Data Cleaning/Wrangling, Structured/Unstructured Data, Git, Neo4j

Analytics & Applications: Streamlit, Power BI, Tableau, Excel, Statistical Analysis, Predictive Analytics, KPI Reporting, Automation

Professional Experience

Senior Data Analyst **Jan 2020 – Aug 2024**
Caprileo Data Services Pvt Ltd *Bengaluru, Karnataka, India*

- Led Python- and SQL-based analytics and predictive-modeling initiatives, translating operational data into decision-support insights and stakeholder recommendations.
- Built machine-learning models with Scikit-learn, TensorFlow/Keras, and PyTorch for classification, forecasting, pattern detection, and predictive analytics.
- Performed exploratory analysis, data cleaning, feature engineering, statistical analysis, model selection, and validation across structured datasets.
- Automated data-processing and reporting workflows and developed Power BI/Excel dashboards for KPI tracking, operational monitoring, and business reporting.
- Partnered with technical and business stakeholders to define analytical requirements, interpret model outputs, and communicate data-driven findings.

Software Engineer **Jan 2017 – Dec 2019**
TekWissen India *Hyderabad, Telangana, India*

- Developed and maintained backend applications and data-processing components using Java and Python for enterprise workflows and system integrations.
- Performed debugging, software validation, testing, and performance analysis to identify defects, bottlenecks, failures, and reliability issues.
- Used operational and system data for troubleshooting, root-cause analysis, performance monitoring, deployment, configuration, and production support.

Projects

AuRA-Discovery: Agentic Graph-RAG for Biomedical Evidence Review
Pace University

- Built an agentic Graph-RAG pipeline integrating PubMed literature retrieval, ChEMBL grounding, biomedical entity extraction, schema validation, and graph-ready evidence generation.
- Designed retrieval, extraction, grounding, validation, and review stages to improve evidence traceability and reduce unsupported outputs in biomedical AI workflows.
- Structured graph-ready evidence linking literature findings with biomedical entities and drug-interaction context.
- Built a Streamlit review application for drug-drug interaction evidence, PMIDs, literature snippets, confidence context, and human-review routing.

Education

Master of Science in Data Science – Pace University, New York, NY **Sep 2024 – May 2026**
Bachelor of Technology in Mechatronics – SRM University, Chennai, India **2012 – 2016**

Certifications

Specialized Program in Artificial Intelligence & Machine Learning with Drone Tech – TiHAN-IIT Hyderabad, May 2026
RAG and Agentic AI – IBM | **MLOps | Machine Learning Operations** – Duke University

Publication

Side View Vehicle Detection Method [PDF]
International Journal of Engineering Research and Development (IJERD), Vol. 12, Issue 7, July 2016, pp. 17–19.