RISHIKA RAVI KUKUTTALA

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SUMMARY

Data professional with 3+ years of experience in analytics, machine learning, and data pipeline development. Skilled in Python, SQL, and Snowflake with hands-on expertise in LLMs, RAG architecture, and cloud platforms (AWS, Azure, GCP). Adept at statistical modeling, data visualization, and transforming complex data into actionable business insights.

PROFESSIONAL EXPERIENCE

Research Assistant, University of Texas at Arlington | *Arlington, TX*   **Feb '25 - Present**

Skills – Python, LangChain, RAG, FAISS, LLMs, NLP, AI, Data Pipelines

- Engineered a modular AI-powered document processing pipeline using LangChain, FAISS, and lightweight LLMs, improving document retrieval accuracy by 40%.
- Automated data ingestion, text extraction, semantic embeddings, and context-aware querying, reducing research workflow time by 50%.
- Implemented RAG architecture for natural language questions answering across large unstructured document sets.
- Optimized vector search and inference latency, improving real-time retrieval performance and scalability for multimodal AI use cases.
- Developed Langflow dashboards for visualizing LLM responses, enabling transparent debugging and workflow optimization.

Jr Data Analyst, Smartroniverse | *Bengaluru, India*   **Oct '21 - Jul '22**

Skills – Python, SQL, MySQL, Excel, Power BI, Forecasting, Statistical Analysis, ETL

- Built ETL data pipelines for structured and unstructured sources using Python (Pandas, NumPy) and SQL, enhancing data integration and accuracy.
- Designed Power BI dashboards and interactive Excel reports to visualize KPIs, operational metrics, and sales trends, enabling data-driven decision-making.
- Applied forecasting models and regression analysis to predict business growth patterns, achieving a 15% improvement in demand forecasting accuracy.
- Collaborated cross-functionally with finance and operations teams to implement data quality controls and improve reporting timeliness.

Analyst, Bharat Electronics Limited | *Bengaluru, India*   **Oct '20 - Dec '20**

Skills – Python, SQL, AWS, PostgreSQL, CI/CD, Data Engineering

- Analyzed UAV telemetry and operational data using Python and SQL, improving performance insights by 25%.
- Integrated AWS-based data pipelines into CI/CD workflows, increasing reporting reliability and speed by 40%.
- Automated data workflows and reporting processes, reducing manual effort by 30%.
- Enhanced data accessibility through PostgreSQL and AWS integration, supporting faster design and operational decisions.

ACADEMIC PROJECTS

UTA OIT ServiceNow Ticketing System, UTA | *Arlington, TX*   **Aug '24 - Dec '24**

Skills – SQL, Python, ServiceNow, MySQL

- Analyzed ticket patterns in OIT's ServiceNow system, optimizing support workflows and reducing "bouncing tickets" by 40% while improving resolution times for recurring issues by 20%.
- Collaborated with IT teams to streamline escalation paths, increasing client satisfaction by 12% and reducing unnecessary ticket escalations by 15%.
- Implemented predictive modeling for high-latency tickets, cutting average resolution time by 10% and fostering a more efficient support process.

Arlington Accident Analysis, UTA | *Arlington, TX*   **Jan '23 - May '23**

Skills – R Studio, Python, Statistical Analysis, Hypothesis Testing

- Analyzed traffic at 200 intersections using 5 key grouping variables and computed accident frequencies over time with R Studio, generating insights to improve traffic management and safety.
- Aggregated and analyzed traffic data to identify the top 10 high-traffic intersections and evaluate vehicle density trends, revealing a 15% increase in peak-hour traffic over the past year.
- Calculated correlation coefficients between vehicle counts and accident occurrences for a statistically significant relationship with a p-value of less than 0.05.

TECHNICAL SKILLS

Programming & ML/AI: Python, R, SQL, PySpark, TensorFlow, PyTorch, Scikit-learn, NLP, LLMs (LangChain, RAG), Predictive Modeling, Feature Engineering, Data Mining

Data Engineering & Management: Snowflake, PostgreSQL, MySQL, SQL Server, ETL Pipelines, Data Modeling, Data Integration, Data Warehousing

Data Visualization & Analytics: Power BI, Tableau, Excel (Advanced), R Studio, Matplotlib, Seaborn, Statistical Analysis, Forecasting, A/B Testing, Business Intelligence

Cloud & DevOps: AWS (S3, EC2, Lambda), Azure, GCP, Docker, Git, CI/CD

Tools & Collaboration: JIRA, Confluence, Bitbucket, ServiceNow

EDUCATION

Master's in data science - University of Texas at Arlington   **Jan '23 - Dec '24**

Bachelors in Electronics and Communication - KS Institute of Technology   **Aug '18 - Jul '22**