Atharva Bapat

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SUMMARY

Data Scientist with a Master's in Computer Science and hands-on experience in SQL, Python, and data visualization tools to derive actionable insights from complex datasets. Passionate for designing end-to-end analytical and machine learning solutions to uncover consumer behavior insights, support experimentation, and drive business strategy especially in cloud and large-scale data environments.

SKILLS & INTERESTS

Skills: SQL, Python, Data Analysis, Data Validation, PostgreSQL, Streamlit, Tableau, Power BI, REST APIs, Agile Collaboration, Data Visualization, Statistical Analysis, Prompt Engineering, Machine Learning, AWS Serverless Services, FastAPI.

EDUCATION

University of North Carolina at Charlotte   **Charlotte, NC**
Master's Degree in Computer Science   *Graduation Date: May 2024*

WORK EXPERIENCE

Theoremlabs Partners LLC   **Charlotte, NC**
Programmer Analyst   *Sep 2024 - Present*
- Improved scalability and reduced operational costs by deploying serverless architectures using AWS Lambda, Step Functions, API Gateway, S3, SQS, and SNS.
- Decreased release failures and streamlined deployments by automating CI/CD pipelines using Git, Jenkins, and CloudFormation.
- Accelerated financial advisor decision-making by 60% by developing a Microsoft Copilot bot that leveraged advisory data to intelligently answer domain-specific questions.
- Boosted insight accessibility by 40% by leading the design of SQL views and performing data validation to support stakeholder-driven strategy development.

Persistent Systems   **Pune, India**
Software Developer   *Jan 2022 - Jun 2022*
- Enabled dynamic infrastructure observability and improved decision-making by building React + TypeScript dashboards integrated with AWS APIs for real-time data visualization.
- Ensured secure and flexible data access by implementing AWS API Gateway over Lambda APIs, allowing users to retrieve data by custom time ranges while preserving privacy.

PROJECT EXPERIENCE

LLM-Based Natural Language Querying for Databases
- Developed a state-of-the-art NLP chatbot using AWS Bedrock foundation models wrapped with an MCP (Model–Context–Protocol) layer to intelligently manage context and tool calls for natural language-based CRUD operations on a PostgreSQL database.
- Enhanced user autonomy and reduced dependency on technical teams by enabling intuitive, language-driven data access improving data accessibility and decision-making efficiency by streamlining internal query workflows.
- Improving response reliability and reducing hallucinations Applied prompt engineering to guide the model in accurately translating user questions into SQL queries

Consumer Purchase Behavior Modeling
- Built a machine learning pipeline to analyze consumers data and predict repeat purchase likelihood using logistic regression, decision trees. The data source used is InstaCart Online Grocery Basket data.
- Created features like how recently and how often users bought items to understand shopping behavior. Grouped users based on loyalty and product preferences to improve targeting.
- Simulated A/B testing to compare different campaign strategies and used uplift modeling to estimate impact.

DocumentIQ: Intelligent Financial Document Process
- Built an automated pipeline using Hugging Face's LayoutLM to extract structured data from scanned government and financial documents (e.g., tax forms, KYC).
- Built an interactive Streamlit UI for document upload and review, with a FastAPI backend handling OCR processing, data validation, and database integration.
- Streamlined document processing workflow and reduced manual data entry by 80%, enabling faster access to critical financial information.