RAJARSHI CHATTERJEE

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SUMMARY

With experience in data engineering and data science, I specialize in creating optimized solutions and sustainable frameworks using Python and AWS. My expertise extends to building generative AI applications, leveraging LangChain and LlamaIndex to develop intuitive interfaces for querying financial reports. I am passionate about innovation, consistently delivering solutions that enhance efficiency and drive business success. My problem-solving skills are complemented by a strong ability to integrate and streamline complex data systems.

EDUCATION

Program	Institute	CGPA / %age	Completion Year
B.Tech	Meghnad Saha Institute of Technology	9.12	2017-2021
XII (ISC Board)	W.W.A. Cossipore English School	92.2%	2017
X (ICSE Board)	W.W.A. Cossipore English School	94.75%	2015

SKILLS

Technical: **Python** and it's libraries like Pandas, Pyspark, SKlearn, Lang-chain, Streamlit, tkinter, spacy, cx_freeze, Flutter
       AWS services like S3, Glue, IAM, Cloud formations, Aurora, Redshift, Crawler, DynamoDB, Athena
       Databases: Oracle, Aurora, Redshift, DynamoDB, Pinecone, Milvus Ziliz
       Understanding of Data Structures and their implementation. Avid coder at [leetcode](#).
       Understanding of data storage, governance and various data mining architectural models and **SQL**
       Skilled with the utilization of Large Language Models for building customized AI apps.
Functional: Effective Communication and Stakeholder Engagement Skills.
       Proactive Problem-Solving and driven to continuous Learning.
       Skilled at Strategic Team Leadership and Task Management.

PROJECTS

Client: US Based Private Equity Firm   **October 2022 –till Date**
Project 1
      Responsibilities
• Analyzed and categorized reports into Simple, Medium, Complex, and Super Complex levels, ensuring appropriate handling and optimization based on their intricacies.
• Developed a Python-based automation tool for mapping report attributes from the Cognos Framework Manager, enabling data export to Excel sheets and reducing manual intervention by 60%.
• Engineered ETL infrastructure using CloudFormation templates and led the development of an ETL framework with AWS Glue to generate reports within the AWS Cloud ecosystem utilizing shared resources for optimization.
• Implemented AWS Lambda and Storage Gateway for on-demand report generation and created a Python-based stand alone UI tool for user-friendly report triggering, integrating it with cloud services to enable automatic updates.

Innovation Wing   **July 2023 – August-2023**
Project-2
• Developed a LangChain-based financial report retrieval system, employing vector databases, prompts, and agents to deliver customized search results, enhanced by conversation memory for seamless user interaction.
• Designed a self-sustaining pipeline for scheduled data mining from financial reports, incorporating preprocessing and hallucination mitigation with tailored fact-checking, reducing analysis time by 50%.

Personal Projects   **July 2021- continued**
Project 1
• Developed a Retrieval-Augmented Generation (RAG) chatbot using LangChain and Llamaindex, leveraging open-source LLMs such as HuggingFaceHub and Gemini AI, along with VectorDB Zilliz. The user interface was built with Flutter and packaged with PyInstaller to efficiently retrieve candidate information from uploaded resumes.

CERTIFICATIONS

AWS Developer Associate
Azure AI Fundamentals

EXTRA-CURRICULAR ACTIVITIES

Painting (National and State Award winner)   Gaming   Debates and Tech podcasts   Metaverse Exploration