Shivam Choudhary

Software Engineer III - Carelon

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Summary and Experience:

- ➤ Shivam is a Software Engineer III in Data Science capability having a total experience of ~4 years, working primarily on the development of Data Science solutions, Machine Learning pipelines, Big Data Pipelines, Cloud Migration and API Development.
- > He has engagement & domain experience with **healthcare** and life science clients (3 years), **Biopharmaceuticals** (1 Year).
- > Evaluates the requirement and help with the options to make cost-optimized solutions for the benefit of clients and the organization.
- Expertise in designing data-driven solutions by leveraging cutting-edge technologies like **Pyspark**, **Airflow**, **AI**, MongoDB, cloud native, cloud agnostic solutions.
- > Experienced in both **agile** and **waterfall** methodologies of delivery.
- > Won INSTA award for implementing a cost-effective data pipeline that will process millions of unstructured data(pdf).
- ➤ Won Impact Award for the active contribution to designing an ETL pipeline to be integrated with ML models to scale the inference ~40 million record.
- Master of Computer Application MCA from the University of Mysore.
- Bachelor of Computer Application BCA from the West Bengal University of Technology.

Tools & Skillset:

OS: Linux, Win
Language: Python

3. Database: MySQL, MongoDB, Snowflake

4. Cloud: AWS, Azure

5. Framework: Flask, FastAPI, GraphQL, PyUnit, PySpark

6. Tools: Airflow, RabbitMQ

Certifications:

- Microsoft Certified Azure Data Scientist (DP:100)
- Microsoft Certified Data Fundamental (DP-900)
- Microsoft Al Fundamental (Al-900)
- Microsoft Azure Fundamental (AZ-900)
- Microsoft Certified Al-Engineer (Al-100)
- Microsoft Certified Python Programmer (MTA 98-381)
- AWS Cloud Practitioner

Project Experience:

Carelon Global Solutions – (Sept 2022 – till date)

1. Care Management

- ✓ **Description**: Engineering & Orchestration of big data pipeline and ML models enabling Care Management applications for model inference. Developed a patient outreach automation that will indirectly reduce the expenses of the organization and time.
- ✓ **Domain**: Healthcare
- ✓ Role Played: Al Engineer
- ✓ Contribution:
 - Created a pipeline to get data from Hive tables and mongoDB to perform the pre-processing feature using **Pyspark**.
 - o Plugged XGBoost-based AutoML model in BigData Pipeline which will infer ~40 Million datapoints.
 - o Implemented **SHAP** to understand local/global feature interpretation and feature importance while real-time inferencing.
 - o **Technology Used**: Airflow, Snowpark, MongoDB, PySpark, Hadoop, Yarn, Responsible Al

Deloitte USI - (Jan 2021- Sept 2022)

1. Data Migration and Analytics Platform

- ✓ **Description**: Migration applications of Big Data Stack to Snowflake and exposed via restful service.
- ✓ **Domain**: Healthcare
- ✓ Role Played: Data Engineer
- ✓ Contribution:
 - Migrated on-premises big data stack to snowflake leveraging AWS data services (AWS glue, step functions)
 - Analyzing the big data stack and suggesting similar cost-cutting options to clients to optimize the cost of deliverables.
 - Handling the project deliverables from offshore, plan Scrum planning to avoid the risk of delivery on time.
- ✓ Technology Used: Snowflake, Spark, Scala, AWS

2. Data Migration and Application Modernization

- ✓ **Description**: Application migration from Mainframe Technology to Digital Cloud Service (AWS) in the form of scalable microservices.
- ✓ **Domain**: Healthcare
- ✓ Role Played: Data Science cum Data Engineer
- ✓ Contribution:
 - o Identified the layer of data and designed separate microservice for all the data access layer
 - o Deployed designed microservices on EKS.
 - o Written 100+ transformation rules to achieve graphQL user requests.
 - o Integrated restful services with graphQL framework to reduce user requests' latency by 60%.
- ✓ **Technology Used**: Python, AWS, MongoDB, Flask-restful, graphQL, pytest, Docker, Kubernetes

Infosys Ltd - (*Sept 2019- Dec 2020***)**

1. Data Remediation Tool

- ✓ **Description**: An in-house ETL workbench tool customization for the client, digitization of legacy paper recipes for modern MES system to be migrated and implemented.
- ✓ **Domain**: Biopharmaceuticals
- ✓ Role Played: Data Science Associate
- ✓ Contribution:
 - Designed a data pipeline that will extract data from PDFs and word files and dump it into PostgreSQL for data processing and data wrangling
 - Implemented ML model to generate keywords for building block suggestion and Template recommendation (BoW, TF-IDF, rake-NLTK)