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## **Summary:**

An astute MLOps specialist holding an overall 8 years of experience in IT with 6 yrs. of full-time experience in MLOps /Data science /AWS areas and 2 yrs. in data Engineering.

Having wide range of expertise in building MLOps solutions on AWS Cloud using some of the popular AWS services such as SageMaker, Lambda, API Gateway, DynamoDB, CloudWatch ,AWS Quicksight.

Extensive experience on productionizing the ML models, model deployments & model monitoring & governance.

Been a team player in defining project scope, suggesting technology stack and in designing the ML flow/model operations architecture. Extremely passionate about exploring new cloud platforms (like Azure, GCP) and CI/CD frameworks that are constantly evolving in the MLOps/Data Science areas, Gen AI, LLMOps using some of the popular transformers like Hugging Face, OpenAI etc. Example Data Science subject areas include sales prediction, credit risks modelling etc

## **Skill Set:**

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| --- | --- | --- |
| * Business Analytics | * MLOps/Model operations | * MLOps solution building |
| * Machine Learning | * Python | * Model Monitoring |
| * AWS (Cloud) | * Model Deployment | * Model Governance |
| * MLFlow | * AWS SageMaker | * ML Pipelines |
| * Docker containerization | * CI/CD frameworks | * SQL |

**Technical Expertise:**

Programming skills: Python and SQL

## Cloud Platforms & DB: AWS(Primary), Azure(secondary ), PostgreSQL, AWS Redshift

ML/MLOps: Jupyter Notebook, AWS SageMaker, MLFlow, API Gateway

## Visualization Tool:AWS Quicksight

## Project Methodologies: Agile

## Version control Tools: Github

**Professional experience:**

Organization: KPMG India, Duration: Jan 2022 to till date

* Currently working as an AM in KPMG as MLOps Specialist handling model deployments & monitoring modules.
* To build a production ready MLOps pipeline design for deploying the ML models in AWS Cloud
* Defining the project scope and suggesting technology stack and Solution Architecture.
* Extensively worked on model evaluations for ML and LLM OpenAI models from Azure.
* Team player in implementing the MLOps Solution CI/CD pipeline.
* Understanding the complex challenges while productionizing an ML model and figuring out the most robust solution.

Organization: Cognizant Technology Solutions, Duration: Feb 2019 to Jan 2022

* Joined as an Associate ML engineer and worked for multiple clients across various domains.
* Majorly involved in production ready MLOps pipeline design for deploying the ML models in AWS Cloud.
* Hold good experience on model building and model deployments on AWS Cloud.
* Also hold good exposure in MLFlow for ML model tracking and versioning.

Organization: TCS, Duration: Sep 2015 to Feb 2019

* Joined as DB developer worked as database developer that used SQL, PL/SQL and got an opportunity to work for analytics and Data science teams.
* Understanding the business needs of customers and was able to translate them to operational requirements and providing insights to the management
* Statistical analysis of various projects through usage of appropriate statistical techniques such as linear regression, Logistic regression, Classification, Random Forest, decision tree, clustering.

**Project 1:** Building an MLOps solution for deploying & monitoring models for a leading automobile manufacturing company

Objective: To build an MLOps solution for deploying & monitoring the ML models in AWS.

* As a part of this solution deployed client’s True value pricing model in AWS Cloud using AWS SageMaker.
* As part of BYOM model deployment worked on docker file creation to containerize all model dependent files and build & run the docker image and push it to ECR repository.
* Deployed the model and exposing the model via REST API using AWS API Gateway for real time inferences.
* Post successful model deployment, monitoring the model for its performance and business accuracy using std model accuracy metrics, business KPI’s and pushing the metrics to CloudWatch.
* Configuring CloudWatch alarms on metric thresholds for sending notifications to concerned teams via emails incase the metric breaches the threshold.
* Tools Used – Python, AWS.

**Project 2:** Generative AILLM model evaluation

Objective: The goal is to evaluate Large language models for its model accuracy (POC)

* Have done R&D on evaluating LLM models with various strategies.
* Monitoring the LLM models performance using right set of metrics for the specific use case.
* Performing model evaluation on OpenAI GPT3.5 model by comparing model responses against human references using relevant evaluation metrics like BLUE , METEOR, perplexity score etc
* Generating relevant LLM metrics using Lang kit ,an open source tool kit for evaluating LLMs and monitoring and logging them in WhyLabs observability Platform.

**Project 3:** Building an MLOps solution for deploying ML models for J&J a global FMCG manufacturer

Objective: To build an MLOps solution for deploying the ML models in AWS

* As a part of this solution deployed a (logistic regression model) in AWS SageMaker.
* Deployed the model using AWS Lambda & AWS API Gateway for real time modes/inferences.
* Used SageMaker capabilities to perform continuous monitoring to measure data health, model health & service health and detecting data drift & model drift if any.
* Visualizing and performing analytics in AWS Quicksight connecting to S3 as data source.
* Tools Used – Python, AWS.

**Project 4:** Building an MLOps solution for deploying ML models for WWE

Objective: To build an MLOps pipeline design for deploying the ML models in AWS

* As a part of this solution deployed customer TV viewership model in AWS Sagemaker.
* Majorly involved in building the deployment pipeline and orchestrating the process workflows training & inference using AWS apache Airflow.
* Building the modularized codes and building workflow dags for training, inference, evalution in airflow.
* Tools Used – Python, AWS.

**Project 5:** Building prediction model to identify loan risk for Credit Suisse a global investment bank & financial service firm.

Objective: The goal is to build a prediction model to predict the Shortfall of the bank based on the given set of variables with good accuracy.

* Model building Process:

Variables(shortfall\_360d,allocation\_coll,collateral\_cv,utilization etc) were checked for the normality and used scatter plot to detect the correlation between the variables .Examined the significant variables based on p values. Based on the scatter plot and VIF values identified that there was collinearity existed between two variables. Tried log transformation of one variable and ran the regression again and got satisfactory results and R-square is 83% and adjusted R square was 81%. And built confidence intervals for model coefficients.

## **Certifications:**

* ORACLE 11g-SQL Fundamentals (Oracle Certified Associate (OCA) )
* Certified Data Scientist from ExcelR Solutions Bangalore
* AWS internally certified (corporate certified)

**Educational Qualification:**

## Bachelor of Technology in Electronics & Comm Engg 2010 - 2014

NEC - JNTU Ananthapur University