# akarsh Mehta

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#### **SUMMARY**

AI Engineer with over 3.5 years of experience architecting end-to-end ML systems using Generative AI, LLMs, RAG, and Deep Learning. Proficient in deploying scalable applications with MLOps tools like Docker and Kubernetes on cloud platforms like AWS SageMaker.

#### **EDUCATION**

**Master of Science, Computer Science** 

Aug 2023 - May 2025

Texas A&M University-Corpus Christi

Texas, USA

**Bachelor of Technology, Computer Science** 

Aug 2016 - Aug 2020

Amity University, Gwalior

Madhya Pradesh, India

#### RELEVANT EXPERIENCE

**Software Engineer** 

Jan 2025 - Present

**HubOEM** 

Corpus Christi, USA

- Engineered robust ETL pipelines that improved data processing efficiency by 30% and reduced client onboarding time by 25%.
- Built a BI dashboard in Ruby on Rails to automate reporting, saving the engineering team over 10 hours of manual work each week.
- Designed and developed new full-stack features using Ruby on Rails and JavaScript, achieving a 90% adoption rate among clients.

## **Software Engineer - AI Platform**

Feb 2021 - Aug 2023

Larsen & Toubro Technology Services

Bengaluru, IN

- Designed an AI anomaly detection system for the Pytest test suite, applying NLP to log files to improve fault localization by 40%.
- Built an end-to-end test-case recommendation model by curating and labeling historical data, reducing redundant tests by 25%
- Led the development of an ML pipeline in Python to classify and prioritize defect reports, cutting manual triage time by 35%.
- Engineered a predictive analytics module to forecast high-risk build failures with 80% accuracy, enabling proactive fixes

**Software Developer** July 2020 – Jan 2021 Gwalior, IN

**Amrutam** 

 Developed an AI-driven product recommendation chatbot using Dialogflow and Node.js. • Applied context-aware slot filling and fallback strategies, lifting user satisfaction by 30 and cutting query errors by 20%.

Analyzed chat data with Google and Dialogflow Analytics to guide catalog updates, lifting conversion rates by 25%.

## **PROJECTS**

## Automated Customer Churn Prediction | Python, AWS SageMaker, Scikit-Learn, MLOps

- Developed and trained a classification model using Scikit-learn and customer data to predict subscription churn with high accuracy.
- Orchestrated an end-to-end MLOps pipeline using AWS SageMaker Pipelines, automating data preprocessing, model training, and endpoint deployment for real-time inference.

## **Savr: A Vital Pantry** | Flutter, Firebase, Generative AI

- Led the end-to-end development of 'SAVR', an AI-powered health and wellness assistant app, selected as Best Project in the Advanced Software Engineering course.
- Integrated the Gemini 2.0 Flash model to power the app's generative AI features, including personalized meal planning and fitness monitoring, alongside core expiry tracking.

## Smart Assist: LLM-Enhanced Chatbot for Customer Service | Python, LLMs, RAG, Conversational AI

- Architected "SmartAssist," a conversational agent designed to resolve complex customer queries for credit card services.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline to ground an LLM in a proprietary knowledge base, ensuring factually accurate and policy-compliant responses.

## Research Paper | Machine Learning Algorithms, Deep Learning, Sentiment Analysis, Twitter Datasets

- Applied machine learning algorithms—including SVM, K-NN, and LSTM—to analyze and recognize sarcasm in tweets.
- Achieved an optimal precision of 89.23% with LSTM; published findings in a reputable international journal, advancing sentiment analysis in computational linguistics.

### **TECHNICAL SKILLS**

Python, C++, JavaScript Languages:

Generative AI, Large Language Models (LLMs), RAG, NLP, Deep Learning, Machine Learning **Artificial Intelligence:** 

ML Frameworks & MLOps: MLOps, TensorFlow, Scikit-learn, Pandas, NumPy

**Backend & Data:** ETL, RESTful APIs, NodeJS, ExpressJS, SQL, PostgreSQL, MongoDB

Cloud & DevOps: AWS SageMaker, Google Cloud Platform (GCP), Docker, Kubernetes, Jenkins, Git, Linux/Unix