[CANDIDATE NAME]

AI ENGINEER

Mobile: [Phone] | Email: [Email] | Location: Chennai, Tamil Nadu

PROFESSIONAL SUMMARY

AI Engineer with **[X]+ years** of experience building data and AI solutions with **SQL**, **Python**, **Machine Learning**, **NLP**, **AWS** data pipelines, **Generative AI** and **Agentic AI**. Strong expertise in **Pandas/NumPy**, **scikit-learn**, **spaCy**, **Transformers**, **LangChain**, **RAG** with **FAISS/ChromaDB** and **AI agents**, with hands-on experience in **AWS Glue, Redshift, Lambda, Step Functions and SageMaker**. Skilled in taking models from experimentation to deployment with evaluation, monitoring and safe tool use.

TECHNICAL SKILLS

- **SQL:** DDL, DML, Joins, Set Operations, Subqueries, CTEs, Window Functions, Views, Indexing, Stored Procedures, Query Optimization
- **Python:** Data Structures, Functions, File I/O, Regex, Exception Handling, Virtual Environments, NumPy, Pandas, Data Cleaning, Exploratory Analysis
- **Machine Learning:** Linear/Logistic Regression, Decision Trees, Random Forest, Clustering (K-Means), Feature Engineering, Model Evaluation, scikit-learn Pipelines and ColumnTransformer
- **NLP:** Text Pre-processing, Tokenization, TF-IDF, Embeddings, spaCy NER, Transformer Models (BERT), Hugging Face
- **Generative AI:** LLM Fundamentals, Prompt Engineering, BERT and GPT Concepts, Fine-tuning vs RAG, LLaMA3, OpenAI APIs
- **RAG and Vector DBs:** Document Loading, Chunking, Embeddings, FAISS, ChromaDB, Retrieval Pipelines, Conversational Memory
- **Agentic AI:** LangChain, Tool Calling, Planning, Agent State, Bounded Agents, Retries, Guardrails, Prompt-Injection Testing
- **AWS Cloud:** IAM, S3, EC2, Lambda, CloudWatch, EventBridge, AWS Glue (Crawlers, Jobs, Data Catalog), Amazon Redshift, Step Functions, SageMaker
- **Data Engineering:** ETL Design, Data Warehousing, Snowflake Concepts, Partitioning, Pipeline Orchestration, Data Quality Checks
- **MLOps and Deployment:** Model Packaging, REST APIs (FastAPI/Flask), Monitoring, Versioning, Pipeline Orchestration
- **Tools:** Jupyter, VS Code, Git, GitHub, Postman, Streamlit

CORE COMPONENTS

Data Extraction and Transformation | Exploratory Data Analysis | Machine Learning Model Development | NLP Solutions | LLM Application Development | RAG Pipeline Design | AI Agent Development | AWS ETL and Warehousing | Model Deployment and Monitoring | Prompt Engineering | Responsible and Safe AI Use

WORK EXPERIENCE

[Company Name] | AI Engineer [Month Year] – Present

Overall Experience: [X] Years | **Relevant Experience:** [X] Years

Roles and Responsibilities

- Wrote advanced **SQL** (joins, CTEs, window functions, views, stored procedures) to prepare and validate analytical datasets and optimised slow queries using query plans and indexing.
- Built **Python** data pipelines with **Pandas** and **NumPy** for cleaning, transformation, deduplication and validation of structured and text data.
- Developed **machine learning** models (regression, decision trees, clustering) with feature engineering and **scikit-learn Pipelines**, evaluated with suitable metrics and held-out data.
- Built **NLP** solutions using **spaCy** for entity extraction and **Transformer/BERT** models for text classification and semantic understanding.
- Developed **LLM applications** with **LangChain**, prompt templates, structured outputs and conversational memory.
- Designed **RAG** systems with document chunking, embeddings and **FAISS/ChromaDB** vector stores using **LLaMA3**, and tested answer quality against source documents.
- Built bounded **AI agents** with tool calling, state handling, retries and failure tests, including **prompt-injection** checks.
- Created **AWS** ETL pipelines with **S3, Glue Crawlers and Jobs, Redshift, Lambda, EventBridge and Step Functions**, secured with **IAM** least-privilege roles and monitored through **CloudWatch**.
- Orchestrated ML workflows with **SageMaker** and **Step Functions** and exposed models and RAG services through **REST APIs**.
- Documented data lineage, assumptions and evaluation results and worked with business teams, data engineers and developers.

EDUCATION

[Degree / Branch] [Month Year] – [Month Year]
[College / University]

PROJECT EXPERIENCE

Project 3: [Enterprise Document Q&A Assistant]
Technologies: Python, LangChain, LLaMA3, FAISS/ChromaDB, FastAPI
Client: [Client Name] | **Domain:** Enterprise Knowledge Management
Project Description: RAG-based assistant that answers employee questions from internal policy and process documents with source references.
Roles and Responsibilities:

- Built the ingestion pipeline: document loading, chunking, embeddings and vector indexing in FAISS and ChromaDB.
- Implemented retrieval, prompt templates and conversational memory with LangChain and served answers through a REST API.
- Evaluated answer quality against source documents, tuned chunk size and retrieval settings and added an agent with bounded tools for follow-up actions.

Project 2: [Customer Churn Prediction and Text Insights]
Technologies: Python, scikit-learn, spaCy, Transformers, SageMaker
Client: [Client Name] | **Domain:** Telecom / Customer Analytics
Project Description: ML and NLP solution that predicts churn from customer records and extracts themes and entities from support tickets.
Roles and Responsibilities:

- Engineered features and trained regression, decision tree and clustering models using scikit-learn Pipelines.
- Applied spaCy NER and BERT-based classification to categorise support tickets.
- Deployed the model workflow on SageMaker with Step Functions orchestration and monitored runs in CloudWatch.

Project 1: [Email Extraction and Data Pipeline on AWS]
Technologies: Python, SQL, AWS S3, Glue, Redshift, Lambda
Client: [Client Name] | **Domain:** Data Engineering
Project Description: Pipeline that extracts and validates email-like strings from sample files, loads cleaned data into Redshift and exposes it for analytical SQL.
Roles and Responsibilities:

- Wrote Python with regex to extract, normalise, deduplicate and flag invalid entries.
- Used Glue Crawlers and Jobs to catalogue and transform data in S3, and loaded it into Redshift for SQL analysis.
- Triggered runs with Lambda and EventBridge, secured access with IAM roles and tracked failures in CloudWatch.

CERTIFICATIONS

- [Certification name, issuing body, year] (list only certifications actually earned, e.g. AWS Cloud Practitioner)

Sample resume for training reference. Replace all bracketed fields with the candidate's own verified details; list only skills, projects and certifications the candidate has actually done.