

PREMKUMAR M

CONTACT

- + 91 8124894433
- premkumar.muniyasamy@agilisium.com
- 1/32, East Nadar Street Keelakarai Ramanathapuram. - 623517
- www.linkedin.com/in/premkumar2304

SKILLS

Cloud Platforms:

AWS (SageMaker, Bedrock, Lambda, EKS, Glue, EC2, RDS, OpenSearch, Route 53, Certificate Manager, Load Balancer, Secrets Manager), Azure (basic)

Backend Development & APIs:

Python, FastAPI, Flask, REST API Development

DevOps & Infrastructure

GitLab CI/CD, Docker, Kubernetes, Terraform, Git, AWS EKS

Databases & Storage

PostgreSQL, MySQL, AWS RDS, OpenSearch, S3

GenAI

LLMs, LangChain, Bedrock, SageMaker

Data Engineering

Databricks, PySpark, SparkSQL, AWS Glue

Data Visualization

Tableau (basic), custom dashboard integration (if applicable)

CERTIFICATION

- Azure Certified Machine Learning
- AWS Certified Solutions Architect – Associate

SUMMARY

Backend and DevOps Engineer with 3+ years of experience specializing in GenAI application development and scalable backend solutions. Proficient in Python, FastAPI, PostgreSQL, Databricks, and a wide array of AWS services including SageMaker, Bedrock, OpenSearch, EKS, and Glue. Adept at building and deploying AI-powered applications and document search platforms with a strong foundation in CI/CD and infrastructure automation. Passionate about crafting robust systems and driving innovation through automation and intelligent design.

WORK EXPERIENCE

AGILISIUM CONSULTING (AI/ML Engineer & Backend Developer)

[Nov 2022 - Present]

Work Summary: I work on building scalable GenAI-powered applications and backend systems using FastAPI, LangChain, OpenSearch, and AWS services like SageMaker, Bedrock, EKS, and Glue. My contributions include developing intelligent document search platforms with RAG-based architectures, creating robust APIs, and integrating them with cloud infrastructure. I also handle CI/CD automation using GitLab, manage containerized deployments with Docker and Kubernetes, and automate infrastructure with Terraform. In addition, I've built AI-driven chatbots and delivery management solutions, while optimizing data pipelines using Databricks and PySpark for large-scale processing.

Roles and Responsibilities:

- Developed scalable backend services and APIs using Python, FastAPI, and AWS.
- Built GenAI-powered solutions using LangChain, OpenSearch, and Bedrock with RAG architecture.
- Automated deployments and infrastructure using GitLab CI/CD, Docker, Kubernetes, and Terraform.
- Created data pipelines with Databricks, PySpark, and AWS Glue.
- Integrated LLMs into document search platforms and chatbots for intelligent retrieval.
- Ensured secure, high-performance backend systems and collaborated on end-to-end solution delivery.
- Deployed ML models using SageMaker and managed real-time inference workflows.
- Monitored and optimized backend performance for reliability and scalability.

Recognition: Solutions Award (FY24)- Recognized for outstanding innovative solutions. Monthly Shining Star Award (SEP 2023)- Awarded for exceeding performance targets and exemplary teamwork.

EDUCATION

Mohamed Sathak Engineering College, Kilakarai(8.1 CGPA)

[2018 - 2022]

B.E Computer Science Engineering

Projects

GenAI-Powered Document Search Platform

Role: Backend Developer

Tech Stack: AWS SageMaker, Bedrock, Redis, Milvus, FastAPI

Description:

- Designed and developed a GenAI-based document search solution using LLMs for semantic retrieval.
- Integrated vector databases (Redis, Milvus) to support intelligent search capabilities across unstructured content.
- Deployed in a client environment with scalable infrastructure and best practices for AWS security and performance.

Automated Data Engineering Application

Role: Data Engineer & Backend Developer

Tech Stack: FastAPI, PostgreSQL, AWS RDS, EC2, IAM, Secrets Manager, GitLab CI/CD

Description:

- Built a FastAPI-based backend for managing automated ETL pipelines and data workflows.
- Utilized AWS RDS and Secrets Manager for secure and scalable data storage and access control.
- Orchestrated deployments using GitLab CI/CD and managed infrastructure on EC2.

Data Engineering Pipelines Using Databricks & AWS

Role: Data Engineer

Tech Stack: Databricks, AWS Glue, Redshift, S3, Tableau

Description:

- Developed and maintained ETL pipelines to process structured and semi-structured data at scale.
- Leveraged AWS Glue for transformation and Redshift for warehousing and analysis.
- Enabled data visualization and reporting using Tableau dashboards.

AI-Powered Enterprise Chatbot

Role: Backend Engineer

Tech Stack: FastAPI, AWS OpenSearch Serverless, PostgreSQL, EKS, GitLab CI/CD

Description:

- Created backend APIs to support chatbot interactions with dynamic search and data access.
- Implemented search functionality using OpenSearch Serverless for fast and scalable query responses.
- Deployed across dev, QA, and prod environments using EKS and GitLab CI/CD pipelines.