

HARI PRAKASH K

Senior Backend Engineer | Agentic AI | AWS

Bengaluru, KA | +91 81898 79641 | hariprakash.khp@gmail.com | linkedin.com/in/hariprakash-k | github.com/HariprakashKhp

SUMMARY

Staff Engineer with **7+ years** delivering finance and leasing systems, including **2+ years** in agentic AI. Builds **Python/FastAPI microservices**, enterprise **RAG** and **tool-calling agents**, with production deployments serving approximately **1,000 users**. Combines backend architecture, SQL performance engineering and AI native development with recent hands-on **AWS** deployment experience.

SKILLS

Backend and Data: Python, FastAPI, C#, SQL Server, REST/SOAP APIs, asynchronous processing, SQLAlchemy connection pooling

Agentic AI: LangGraph, LangChain, CrewAI, hybrid RAG, BM25, Model Context Protocol (MCP), ChromaDB, Milvus, OpenAI, Ollama

Architecture: System design, HLD, LLD, microservices, read/write separation, Change Data Capture (CDC), API gateway, WAF

Cloud and Delivery: AWS, Docker, CI/CD, Langfuse, LangSmith, Claude Code, Codex CLI

PROFESSIONAL EXPERIENCE

Odessa Solutions | Bengaluru, India | Enterprise finance and leasing platforms

Staff Engineer - AI and Backend Architecture

Apr 2024 - Present

- Architected a **LangGraph/LangChain multi-agent RAG** platform serving approximately **1,000 users** at **100 requests/minute**, combining **BM25** and vector retrieval for enterprise product intelligence; contributed **golden datasets** for **RAGAS** evaluation.
- Built autonomous ticket triage and root-cause analysis across **87+ Jira boards**, using client-specific knowledge and **MCP** for SLA-driven updates and remediation recommendations.
- Implemented **TTL cache refresh** and **CDC-triggered invalidation** so subsequent **Customer Portal** reads fetch fresh database data; bypassed caching for **account balances** and enabled **multi-agent tool calling** over shared **Lessor/Payment** APIs.
- Reduced token and cloud compute costs by **35%** through containerized local/cloud **LLM** integration, while supporting on-premises enterprise data **requirements**.
- Used **local LLMs** for **PII checks** and **request-data validation** before forwarding requests to **frontier models**.
- Cut individual delivery time by approximately **80%** using **Claude Code** and **Codex CLI** for parallel development and debugging, agent context management and **code review**.
- Handle **daily client calls** to gather and clarify **requirements**, translating business needs into backend features and AI workflows.

Senior Software Engineer

Apr 2021 - Apr 2024

- Built **Customer Portal FastAPI microservices** for reporting, billing, transactions and inquiries behind a **CDN/API gateway/WAF** for rate limiting, security and routing; sent writes through **Lessor/Payment** APIs to the primary database and reads/reports to a **CDC-enabled** read database.
- Reduced API response latency by **30%** with asynchronous **Python/FastAPI** services and **SQLAlchemy connection pooling** across high-volume data workloads.
- Led **T-SQL** tuning of indexed views and execution plans, improving stored procedure execution time by **40%**.

Software Engineer

May 2019 - Apr 2021

- Built **C#/SQL Server** asset and invoice automation, reducing manual effort by **55%**; integrated **CyberSource** through **SOAP** services for automated billing.

PROJECTS

Personal Digital Twin on AWS | Personal project | AWS implementation

- Built an **LLM-powered** conversational UI that answers questions about personal background and experience as a digital representative; used **Amazon Bedrock** models and deployed open-source/open-weight models on **Amazon SageMaker**.
- Completed end-to-end **AWS** deployment using **CloudFront**, **S3**, **App Runner**, **Lambda**, **ECR**, **CloudWatch**, **Aurora**, **DynamoDB** and **EventBridge**.

EDUCATION

B.E., Mechanical Engineering | St. Joseph's College of Engineering | 2015 - 2019

MBA, Financial Management | Annamalai University | 2019 - 2021