JASEEM C

Software Engineer | AI Application Engineer

+971 50 110 4384 • seamjaseem@gmail.com • linkedin.com/in/jaseem-c • github.com/jaseem-c • Dubai, UAE

PROFILE SUMMARY

AI-focused Software Engineer with 1.5+ years of experience in backend application development using Python, FastAPI, Golang, REST APIs, databases, and Docker. Hands-on experience developing Generative AI applications, including Retrieval Augmented Generation (RAG) systems with document processing, embeddings, vector databases, semantic retrieval, query expansion, and reranking. Strong foundation in backend architecture, API development, and scalable software systems, with practical knowledge of LLMs, prompt engineering, AI agents and LangChain. Passionate about building reliable, scalable, and production-ready AI solutions that integrate modern AI capabilities with robust software engineering practices..

SKILLS

Languages: Python, Golang ,JavaScript, TypeScript, SQL

AI/GenAI: LLMs, Generative AI, Prompt Engineering, RAG, Embeddings, Vector Search, Query Expansion, AI Agents

AI Frameworks & Tools: LangChain, ChromaDB

Frontend: React.js, HTML5, CSS3, Bootstrap

Backend: Node.js, Express.js, REST APIs, Fiber (Go), FastAPI, Swagger/OpenAPI

Databases: MongoDB, PocketBase, MySQL

DevOps & Infrastructure: Docker, Git, GitHub,Lens, Prometheus, Grafana, Keycloak

AI Developer Tools: Cursor, Claude, ChatGPT, Gemini API, GitHub Copilot

Soft Skills: Critical Thinking, Problem Solving, Effective Communication, Adaptability

WORK EXPERIENCE

Software Engineer | **IndustryApps** *Nov 2024 – Mar 2026 | Kochi, India*

- Independently architected and delivered multiple production-grade applications including a Manufacturing Execution System (MES Lite) and a real-time Digital Error Collection system from design to deployment.
- Built Go (Fiber) REST APIs with PocketBase backend to manage machine lifecycle events, operator assignments, job scheduling, and real-time production data for shop-floor operations.
- Developed and integrated AI-powered chatbots into enterprise applications, enabling natural-language interaction with application data, backend services, and business workflows.
- Built CopilotKit and React-based AI chat assistants for micro services applications, integrating LLM-powered conversational interfaces with backend APIs and application-specific functionality.
- Designed and implemented ERP-to-MES data synchronization service using Go routines and cron-based scheduling, enabling concurrent and automated job data transfer across platforms.
- Integrated real-time communication using MQTT protocol and Server-Sent Events (SSE) for low-latency, live updates between backend services and frontend dashboards.
- Dockerized backend services and implemented Prometheus/Grafana monitoring with structured logging for reliable deployments and troubleshooting.

MERN Stack Developer Intern | **Luminar TechnoHub** *Aug 2024 – Nov 2024 | Kochi, India*

- Developed and deployed full-stack web applications using MongoDB, Express.js, React.js, and Node.js under mentorship in an agile team environment.
- Built responsive UI components and RESTful API integrations, gaining hands-on experience with real-world development workflows, version control (Git), and code review practices.
- Completed an intensive MERN Stack training program at Luminar Technolab (Feb 2024 – Aug 2024), covering advanced JavaScript, React state management, and backend API development.

PROJECTS

MES Lite — *Manufacturing Execution System*

- Independently designed and developed a full-featured Manufacturing Execution System to manage machine operations, job scheduling, operator assignments, and real-time production data at the shop-floor level.
- Built RESTful APIs in Go (Fiber framework) backed by PocketBase, implementing business logic middleware to enforce machine sequencing rules, validate inputs, and prevent job-operation conflicts.
- Developed accurate downtime tracking via pause/resume logic, improving production monitoring and enabling data-driven reporting for operational efficiency.
- Containerized the entire backend using Docker and implemented structured JSON logging with rotation for enterprise-grade observability and easier troubleshooting.

Tech: *Fiber(Go), PocketBase, MS Sql, REST APIs, Docker*

ERP-Job Sync — *Automated ERP Integration Service*

- Architected and delivered a production-grade Golang Job Synchronization Service to integrate with external ERP systems, ensuring accurate and consistent transfer of job data across enterprise platforms.
- Implemented cron-based time scheduling and Go routines for concurrent sync processing, significantly improving throughput and scalability when handling high volumes of job records.
- Designed sync status tracking (success/failure/pending) with robust retry logic, error handling, and structured logging to ensure resilience against API failures and network instability.

Tech: *Go, Cron Jobs, Goroutines, REST APIs, Docker*

AI Manufacturing Knowledge Assistant

- Developed an enterprise RAG-based AI assistant for natural-language querying of MES, CAD, work-instruction, and technical documentation.
- Implemented LLM-based query expansion, vector retrieval, and Cross-Encoder reranking to improve retrieval relevance and identify the most relevant technical document chunks.
- Designed Built context-grounded LLM responses with source citations, enabling users to verify answers against engineering documents and reducing hallucinations.

Tech: *Python, FastAPI, RAG, LLMs, ChromaDB, React*

Quality Pulse — *Product Scrap Management Application*

- Contributed to developing a data-driven application to evaluate and classify manufactured products as Pass or Fail based on CPK (Process Capability Index) values and multi-characteristic sampling.
- Built interactive dashboards and advanced data visualizations using Python, Dash framework, and Plotly, enabling quality engineers to quickly identify scrap trends and manufacturing performance.
- Implemented mass data entry, single-entry, and result-editing workflows with remarks, and integrated seamlessly with a transaction application within the same platform ecosystem.

Tech: *Python, Dash, Plotly, Data Visualization*

Other Notable Contributions

- KPI Reports Dashboard - developed streamlit-based KPI reporting dashboards for operational insights.
- Node-RED Data Simulation & Visualization - built MQTT data simulation flows and visual dashboards for real-time IoT data.
- Built-in Copilot Kit Chatbot - implemented an AI-powered assistant interface within a product platform.

EDUCATION

Master of Computer Applications | **Sree Narayana Gurukulam College of Engineering** *2022 – 2024 | Kolanchery, Kerala*

B.Sc. Physics | **Sree Neelakanta Government Sanskrit College** *2019 – 2022 | Pattambi, Kerala*

CERTIFICATIONS

- Database Management System — NPTEL (IIT Certification)
- Data Science for Engineers — NPTEL (IIT Certification)