

Albin Antony

Lead Engineer

✉ albinantony.me@gmail.com ☎ [+91 9961914188](tel:+919961914188) 📍 Kochi 🌐 <https://www.linkedin.com/in/albinantonya2/>

Summary

Lead Backend Engineer with 10 years of experience designing and scaling distributed systems and microservices-based architectures. Specialized in building secure, high-performance backends for enterprise-level AI systems. Experienced in optimizing system performance, managing complex third-party API integrations, and overseeing the full software development lifecycle. A hands-on leader dedicated to architectural excellence, code quality, and building high-impact cross-functional engineering teams.

Technical Skills

Programming: Python, JavaScript, TypeScript

Backend: Flask, FastAPI, Django, REST APIs, Celery, Microservices, Distributed Systems, Event-Driven Architecture, Asynchronous Processing

AI/ML: LLMs, RAG, LangChain, HuggingFace, Multi-Agent Systems, Vector Databases (Weaviate, Qdrant)

Cloud & DevOps: AWS, Azure, Docker, Kubernetes, CI/CD, Jenkins, Helm

Databases & Caching: PostgreSQL, MongoDB, Redis

Messaging & Streaming: Kafka / RabbitMQ, MQTT, EMQX, Mosquitto

Observability: OpenTelemetry, Grafana, Loki, Tempo, Sentry, Microsoft Clarity

Frontend: Angular, JavaScript, TypeScript, HTML, CSS

Professional Experience

CogniCor AI

Lead Engineer

Kochi

Feb 2023 – Jan 2026

- Architected a scalable AI Copilot platform using microservices, automating compliance workflows and reducing manual effort by 90%, improving advisor productivity by 70%.
- Built RAG pipelines using vector databases, multi-agent systems using LangChain and enabling context-aware responses across enterprise datasets.
- Designed a bidirectional CRM integration layer (Salesforce, Microsoft Dynamics) to unify client data and enable seamless cross-system workflows.
- Developed a low-latency meeting intelligence backend for Zoom and Microsoft Teams with local-first transcription and summarization, enhancing data privacy and real-time insights.
- Led migration of CI/CD pipelines to Kubernetes-based infrastructure, improving system reliability and achieving 99.9% uptime.
- Implemented end-to-end observability using OpenTelemetry, Grafana, Loki, and Tempo, improving incident detection and system performance monitoring.
- Led a cross-functional team of 6 engineers, driving full SDLC execution, mentoring developers, and enforcing best practices in clean code and asynchronous system design.

Lead Engineer

Aug 2019 – Jan 2023

- Designed and built a scalable SaaS platform for deploying AI-powered digital assistants, improving enterprise client engagement and operational efficiency.
- Led architecture and development of distributed backend systems supporting high-concurrency workloads and multi-tenant environments.
- Integrated third-party APIs and enterprise tools, enhancing platform capabilities and expanding product offerings.
- Acted as Technical Architect in stakeholder discussions, translating business requirements into scalable system designs and execution roadmaps.

FutureHook Technologies

Kochi

Full Stack Developer

May 2017 – Aug 2019

- Architected and developed a scalable IoT-based home automation platform with real-time device control and distributed system communication.
- Built backend infrastructure supporting event-driven communication using MQTT and EMQX for reliable device orchestration.
- Designed and deployed high-availability cloud infrastructure with automated CI/CD pipelines, improving deployment efficiency and system uptime.
- Developed unified APIs integrating with Amazon Alexa, Google Home, and Apple HomeKit, enabling cross-platform smart device interoperability.
- Owned end-to-end product delivery, including backend systems, mobile applications, and administrative dashboards for device management.
- Led early-stage operational initiatives, including product website development, lead generation systems, and deployment of tools like Odoo and OpenProject.

SayOne Technologies

Kochi

Software Engineer

May 2016 – May 2017

- Built high-performance backend APIs for a large-scale discovery platform, supporting 100K+ active users with low latency and high reliability.
- Developed Proof-of-Concept solutions to onboard enterprise clients, rapidly converting business ideas into scalable production-ready systems.
- Implemented asynchronous task processing and workflow automation for e-commerce platforms, improving system throughput and efficiency, integrated payment systems (Stripe)
- Engineered high-efficiency data crawling systems using Scrapy for large-scale data extraction and processing.

Core Competencies

Leadership & Management: Team Leadership, Mentoring, Agile/Scrum, Hiring, Cross-Functional Collaboration

System Design & Architecture: Distributed Systems, Microservices Architecture, API Design, Scalable Systems, Technical Roadmapping

AI Systems Engineering: LLM Applications, RAG Pipelines, Multi-Agent Systems, AI System Design, Prompt Engineering, LLM Evaluation

Backend & Platform Engineering: High-Concurrency Systems, Asynchronous Processing, Event-Driven Architecture, API Integrations

DevOps & Reliability: CI/CD Pipelines, Kubernetes, Observability, Incident Management, High Availability Systems

Performance & Optimization: System Performance Tuning, Cost Optimization, Scalability, Fault Tolerance

Education

Sahrdaya College of Engineering & Technology

Thrissur

B.Tech in Computer Science & Engineering

May 2012 - April 2016