

Anand Kumar Maurya

AI-Focused IoT, Edge AI & Backend Engineer

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PROFESSIONAL SUMMARY

AI-focused IoT, Edge AI, and Backend Engineer with 4+ years designing, developing, and leading backend systems, industrial IoT platforms, enterprise workflow applications, and AI-enabled systems. Experienced as both Lead and Developer across gate automation, GPS/DGPS container tracking, weighbridge and warehouse automation, OCR document digitalization, and MCP-based infrastructure automation. Currently focused on Agentic AI, Spring AI, MCP servers, RAG, and local LLMs, building intelligent backend platforms that connect enterprise workflows, IoT telemetry, infrastructure, and AI agents.

CORE SKILLS

Backend Engineering: Java, Spring Boot, REST APIs, Microservices, Spring Security, OAuth2/OIDC, Keycloak, JWT, API Gateway, RabbitMQ, Redis, PostgreSQL, System Design

IoT & Industrial Automation: RFID, GPS/DGPS, MQTT, EMQX, Serial/UART, UWB, Gate Automation, Weighbridge & Warehouse Automation, Device Tracking

AI & Agentic Systems: Spring AI, Agentic AI, MCP Servers, Llama, Local LLMs, RAG, Tool Calling, AI-Assisted Monitoring, Edge AI

DevOps & Infrastructure: Docker, Linux, Proxmox, LXC, AWS EC2, Nginx, Tomcat, Shell Scripting

Frontend & Full Stack: React, JavaScript, TypeScript, HTML/CSS

PROFESSIONAL EXPERIENCE

Suraj Informatics Pvt. Ltd. — IoT Engineer / Backend Engineer / Team Lead

- Led and developed backend and IoT systems across industrial automation, enterprise workflow platforms, device tracking, document processing, notifications, and secure access control modules.
- Designed Java Spring Boot microservices for telemetry ingestion, event processing, document workflows, RBAC, reporting, audit logging, and real-time dashboards.
- Implemented secure authentication using Spring Security, JWT, OAuth2/OIDC, Keycloak, and custom RBAC.
- Built event-driven backend workflows using RabbitMQ, MQTT, Redis, and WebSocket-based live updates.
- Integrated RFID, GPS/DGPS, serial/UART, and MQTT-based hardware into backend platforms.
- Owned backend architecture, API/database design, deployment support, debugging, and production issue resolution across 15+ systems.
- Led a team of 6 developers across 10+ project deliveries, coordinating planning, implementation, and production support.

Key Metrics: 15+ production systems delivered · 20+ Spring Boot services built & maintained · Led 6 developers across 10+ deliveries · 50% improvement in backend workflow reliability · 30–50% faster production issue diagnosis · 40–70% efficiency gains via automation.

Freelance Web Developer — High Fly Paragliding Website

- Designed and developed a complete website with frontend UI, PHP CodeIgniter backend, booking/payment workflow, and Paytm payment gateway integration.

SELECTED PROJECTS

Agentic IoT Monitoring Platform (Lead + Backend/AI Developer)

- Designed an AI-enabled IoT monitoring platform combining MQTT telemetry, Spring Boot services, dashboards, RAG, and local LLMs.
- Integrated Spring AI, Llama, and tool-calling workflows to enable natural language queries over device status, logs, and alerts.

Impact: Reduced manual alert investigation effort by 40–60%; enabled natural language search across 30+ device events and records.

Tech: Java, Spring Boot, RabbitMQ, Redis, PostgreSQL, MQTT, EMQX, WebSocket, Spring AI, Llama, React, Docker

MCP Server for Beszel and Proxmox (Developer)

- Built a Go-based MCP server connecting AI agents with homelab infrastructure tools (Beszel, Proxmox).
- Implemented tool-calling for node health checks, VM/container status, and resource usage summaries.

Impact: Reduced manual homelab health-check effort by 60–80%; monitoring across 4+ nodes, VMs, and services.

Tech: Go, MCP, Proxmox, Beszel, REST APIs, Linux, AI Agents

AI-Powered Document Digitalization Platform (Lead + Backend/AI Developer)

- Built OCR-driven workflows for document ingestion, classification, field extraction, and validation.

- Added AI-assisted summarization, validation explanation, and document search.

Impact: Reduced manual document review effort by 70%; processed 3,000+ documents/month.

Tech: Java, Spring Boot, PostgreSQL, OCR, RabbitMQ, Redis, JWT, S3-Compatible Storage, React, Docker

Gate Operating System *(Lead + IoT/Backend Developer)*

- Built a gate automation platform for vehicle/container entry-exit using RFID, backend validation, and operator approvals.

Impact: Reduced manual gate pass handling by 50–70%; improved traceability via real-time monitoring and audit logs.

Tech: Java, Spring Boot, RFID, Serial Communication, REST APIs, PostgreSQL, JWT, Docker

Real-Time Container Tracking in Yard *(Lead + IoT/Backend Developer)*

- Implemented GPS/DGPS-based real-time container tracking with MQTT telemetry ingestion and live dashboards.

Impact: Reduced container search time by 60–90%; improved yard visibility through live tracking.

Tech: Java, Spring Boot, GPS, DGPS, MQTT, EMQX, PostgreSQL, Redis, React, Docker

EDUCATION

Master of Computer Applications — ASM Institute of Management & Computer Studies, Thane | 2020–2022 | CGPA: 9.20

Bachelor of Science in Information Technology — J.K. College of Science and Commerce, Navi Mumbai | 2017–2020 | CGPA: 8.82

CERTIFICATION

Microsoft Azure Fundamentals — AZ-900