

Govind Kushwaha

AI Engineer · System Architect · Full-Stack & Flutter Engineer

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Summary

Full-Stack Software Engineer and System Architect with 3+ years building production AI, enterprise SaaS and industrial IoT systems end to end — 20+ applications delivered, 10+ published on Google Play and the Microsoft Store. Specialized in FastAPI, Node.js/NestJS, Next.js and Flutter, with strong command of event-driven, real-time and multi-tenant architectures. Proven ability to turn complex operational problems into scalable, maintainable software that delivers measurable business impact.

Experience

Senior Software Developer

Mopa Global Services Pvt Ltd

May 2025 – Present

- Architected a multi-tenant billing SaaS where one Fastify API serves a Flutter app family (Windows/Android/iOS/POS) and a Next.js web app from a single shared core — five surfaces from one codebase.
- Built AI, ERP-integration and industrial-intelligence platforms (Document AI, Auto PO GRN, PortCrane, Fontys) using FastAPI, Celery, Redis pub/sub and WebSocket realtime.
- Designed scalable backend APIs with Node.js, NestJS, FastAPI, PostgreSQL and MySQL; automation and integrations improved operational efficiency by ~70%.
- Owned delivery end to end: architecture, UI/UX, backend, deployment, CI/CD and production support.

Software Developer

Dectwin Services Pvt Ltd

May 2023 – April 2025

- Delivered 10+ production-grade applications across Android, Web and Windows for clients in billing, CRM, HR, hospitality and industrial domains.
- Built billing and invoicing software that removed ~90% of the manual billing workload.
- Created attendance systems with GPS and live-photo verification, reaching 95% tracking accuracy.
- Developed CRM dashboards with analytics and performance tracking; integrated WhatsApp APIs for automated invoices, alerts and customer engagement.

Key Projects

PortCrane Intelligence Platform

Industrial IoT · Digital Twin

Next.js 15, FastAPI, PostgreSQL/TimescaleDB, Redis, WebSockets, Docker

- Architected a multi-tenant industrial-IoT platform for real-time crane fleet monitoring, AI fatigue detection, and safety & maintenance management.
- Built an event-driven realtime core: FastAPI WebSockets fanned out over Redis pub/sub, with high-frequency telemetry stored in a TimescaleDB hypertable.
- Designed a hardware-agnostic ingestion layer (simulation engine) that swaps to real PLC/camera feeds with no API changes; 6-role RBAC across a 5-service Docker Compose deployment.

Document AI Platform

AI · Document Intelligence

FastAPI, Celery, PaddleOCR/Tesseract, Transformers, Next.js, PostgreSQL

- Built an AI document-processing platform using a multi-engine OCR + NLP pipeline, achieving 95%+ accuracy across invoices, forms and ID documents.
- Offloaded heavy processing to async Celery workers (Redis broker) so large/scanned PDFs never block requests; reduced manual processing time by ~85%.
- Developed a real-time dashboard for pipeline monitoring, review and audit tracking.

Haazir Billing — GST Billing & Inventory Platform

Multi-Tenant SaaS · POS

Fastify 5, MySQL, Sequelize, Redis, Flutter, Riverpod, Next.js 16

- Built a multi-tenant GST billing & inventory platform where one Fastify API serves a Flutter app family (Windows/Android/iOS/POS) plus a Next.js web app and a super-admin panel.
- Centralized all UI and logic in a shared Flutter core package so each platform app is a one-line shell; scoped every request by tenant with JWT + x-shop-id at the boundary.
- Added Redis-backed sessions, caching and pagination for large datasets; WhatsApp OTP login and invoice delivery, Firebase push. Windows build published on the Microsoft Store.

- Automated the loop between two SAP systems end to end: an unattended SAP GUI bot extracts the daily sales-invoice report, then a background pipeline auto-maps, verifies and raises the purchase order and goods receipt with no operator — replacing three manual steps per run.
- Built deterministic material matching over a read-only SAP master database — user-maintained business-unit mappings plus product-code narrowing and numeric dimension comparison — auto-confirming only unambiguous matches and routing the rest to human review.
- Enforced business-unit isolation as a database-level filter rather than in the UI, behind 3-role RBAC with per-user capability flags; added mobile barcode scanning with resumable drafts for goods receipt at the gate, and full request/response capture on every SAP push for audit.

Technical Skills

Languages: JavaScript, TypeScript, Python, Dart, Java, Kotlin, C/C++

Frontend: React.js, Next.js, Tailwind CSS, TanStack Query

Backend: FastAPI, Node.js, NestJS, Express.js, Fastify

Mobile: Flutter, Riverpod/GetX, Kotlin

Databases: PostgreSQL, TimescaleDB, MySQL, MongoDB, MSSQL, Redis

Architecture: Microservices, Event-Driven, Multi-Tenant, Offline-First, WebSockets, REST

Enterprise Integration: SAP (GUI Scripting, REST), RBAC, Master-Data Mapping, Audit Trails

DevOps & Deployment: Docker, Celery, Nginx, CI/CD, Git, VPS, Firebase, Google Play Console, Microsoft Store

AI/ML: OCR, NLP, LLMs, RAG, AI Agents, YOLO, U-Net, OpenCV

Achievements & Certifications

- **Star Performer** — Pre-Placement Training Exam (2023) · **Branch Master** — academic excellence (2023)
- **Code Hunt 5.0 Winner** — inter-college coding competition (2022)
- **Google Code Jam** — qualified Round 1 (2022) · **InfyTQ** (Infosys) and **Cocubes** technical assessments cleared (2022)

Education

B.Tech in Computer Science and Engineering

Aug 2019 – May 2023

CGPA: 9.09 / 10.0