

# Akash Kharat

+91 7083917887 | [akashkharat1212@gmail.com](mailto:akashkharat1212@gmail.com) | [linkedin.com/in/akash-kharat](https://linkedin.com/in/akash-kharat)

## EXPERIENCE

### Software Engineer

Aug. 2021 – Current

*Ksolves India PVT LTD*

*Pune, India*

- Spearheaded Legacy Migration: Led the full-stack modernization of legacy PHP and Node.js monoliths to a scalable NestJS and Next.js architecture, significantly improving code maintainability and system performance.
- Microservices & IoT Architecture: Designed and deployed resilient Microservices solutions with Tuya IoT integrations, enabling real-time data processing and seamless device communication.
- High-Performance Backend Development: Developed robust RESTful APIs using Node.js (Express) and PostgreSQL (Sequelize ORM), optimizing database schemas to handle high-volume traffic efficiently.
- Cloud & DevOps Engineering: Orchestrated containerized application deployments using Docker and managed serverless infrastructure on AWS, ensuring 99.9% uptime and reproducible environments.
- Full-Stack Implementation: Built dynamic, responsive web interfaces using React.js and Redux within the MERN/PERN stack, ensuring a seamless user experience across devices.

## PROJECTS

### Smart Hotel PMS Modernization & IoT Integration | *NestJS, Next.js, Tuya IoT, Redis*

- Led the architectural migration of a legacy monolithic PHP/Node.js codebase to a scalable **NestJS Microservices** architecture.
- Integrated **Tuya IoT OpenAPI** and **MQTT** protocols to enable real-time automation of room scenes (lights, HVAC, locks) based on guest check-in status.
- Architected and optimized the MySQL database schema to handle high-frequency IoT device logs, improving system query response time by **25%**.
- Developed a real-time administrative dashboard using **Next.js** and **Tailwind CSS** for monitoring device health and room environments.

### Multi-Tenant SaaS CRM Platform | *Node.js, React.js, PostgreSQL, TypeScript*

- Engineered a **Multi-tenant Microservices** system with strict data isolation, allowing tenants to customize configurations without affecting other users.
- Implemented dynamic **Localization modules**, enabling tenants to define locale-specific UI languages and feature sets.
- Created reusable utility functions and optimized API layers to support scaling for multiple concurrent enterprise clients, while conducting code reviews for the team.

### Role-Based Lead Management System | *Docker, AWS, Twilio, SendGrid, FCM*

- Developed a centralized communication hub integrating **Twilio** (SMS) and **SendGrid** (Email) to streamline salesperson-lead interactions.
- Orchestrated containerization using **Docker** images, ensuring consistent deployment environments across development and production clusters.
- Implemented **FCM (Firebase Cloud Messaging)** to deliver real-time push notifications to web and mobile users for critical updates.
- Utilized **Sequelize ORM** for efficient database management and complex query optimization.

## TECHNICAL SKILLS

**Languages:** Node.js, TypeScript, JavaScript (ES6+), SQL, HTML/CSS

**Frameworks:** NestJS, Express.js, React.js, Next.js, Redux

**Tools & Cloud:** Docker, AWS, Git, Swagger, Tuya Cloud Platform, MQTT, Webhooks

**Databases:** PostgreSQL, MySQL, MongoDB, Redis

## EDUCATION

### DBATU University

*Bachelor of Technology in Computer Science*

Satara, India

2018 – 2021

### MSBTE Board

*Diploma in Computer Engineering*

Satara, India

2014 – 2018