

ASHOK KUMAR REDDY KOTA

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PROFESSIONAL SUMMARY

Backend-focused Full-Stack Software Engineer with 2+ years of experience building scalable, cloud-native, and AI-integrated web applications. Strong expertise in Python, FastAPI, Django, REST API design, and system architecture, with solid frontend experience using React and TypeScript. Proven ability to design real-time systems, implement secure authentication and authorization, optimize database performance, and integrate AI capabilities using AWS Bedrock. Adept at delivering reliable, high-performance solutions for production environments.

TECHNICAL SKILLS

- Backend:** Python, FastAPI, Django, Django REST Framework, Flask; RESTful APIs, async programming, OAuth 2.0, JWT, RBAC, API security, password hashing
- Frontend:** React.js, TypeScript, JavaScript, Redux Toolkit; component-based and real-time UI development
- System Design:** Scalable architectures, microservices, multi-tenant SaaS, real-time systems, API versioning
- Databases & Caching:** PostgreSQL, MySQL, MongoDB, Redis; schema design, indexing, query optimization
- Testing & Quality:** Pytest (unit & integration), API testing, validation, logging, error handling
- Cloud & AI:** AWS EC2, S3, RDS, CloudFront; AWS Bedrock AI integration, prompt engineering
- Tools:** Git, Postman, Docker, Agile/Scrum workflows

PROFESSIONAL EXPERIENCE

Full-Stack Developer | Independent Projects & Industry Collaboration | 2023 – Present

- Designed and developed scalable full-stack web applications using Django, FastAPI, Flask, and React.js.
- Built secure REST APIs with JWT authentication, RBAC, and CSRF protection, ensuring application security and compliance.
- Migrated legacy on-premise systems to AWS, improving availability, scalability, and performance.
- Optimized database schemas, indexing, and queries, reducing API response times by up to 40%.
- Implemented real-time features using WebSockets and Redis, and supported containerized deployments using Docker.

PROJECTS

Collabryta: AI-Powered Remote Team Collaboration Platform | *FastAPI, React.js, TypeScript, WebSockets, Redis, AWS (EC2, S3, CloudFront, Cognito), AWS Bedrock*

- Architected a cloud-native collaboration platform supporting real-time chat, task management, and audio/video workflows.
- Developed FastAPI-based microservices for notifications, calendar integration, and automated workflows.
- Implemented real-time communication using WebSockets with Redux Toolkit-managed frontend state.
- Integrated AWS Bedrock to deliver AI-driven insights for task prioritization and workload balancing.
- Implemented secure authentication and authorization using AWS Cognito and role-based access control.
- Enabled secure file storage with S3 signed URLs and low-latency content delivery via CloudFront.

OrbitOrg: Multi-Tenant SaaS Platform | *React.js, TypeScript, FastAPI, PostgreSQL, Docker*

- Designed and implemented a multi-tenant SaaS backend with tenant-isolated data models and APIs.
- Built backend services using FastAPI for CRUD operations and business logic.
- Implemented secure JWT-based authentication and authorization.
- Managed real-time dashboard state using Redux Toolkit.
- Ensured consistent performance under high concurrency.

Appointment Booking System | *Django REST, React.js, TypeScript, MySQL, Redis, Docker, AWS*

- Built a real-time doctor–patient scheduling system using Redis locks to prevent double bookings.
- Secured prescription handling with PDF signing & S3 time-limited URLs.
- Implemented multi-channel notifications (email, SMS, in-app) for confirmations/cancellations.
- Optimized database models and caching, improving scalability under high concurrency.

E-Commerce Platform (Clothing Brand) | *Django REST, React.js, MySQL, AWS*

- Developed product catalog, cart, checkout, and order tracking system.
- Integrated secure payment gateway with automated confirmations.
- Built an admin dashboard for product management, inventory, and order fulfillment.
- Optimized backend queries, achieving 40% faster API response times.

EDUCATION

Bachelor of Technology (B.Tech) – Electrical & Electronics Engineering

Rajeev Gandhi Memorial College of Engineering & Technology | 2019 – 2023

CERTIFICATIONS

- Python Programming – Cisco Networking Academy
- Full-Stack Web Development with Django – Udemy
- AWS Academy Cloud Foundations – AWS
- Docker Essentials – IBM Skills Network
- React – The Complete Guide (Udemy)
- Introduction to Cloud DevOps – Udemy

ADDITIONAL HIGHLIGHTS

- Backend-first engineer with strong system-design thinking
- Experience building AI-integrated applications using AWS Bedrock
- Comfortable working on real-time, high-concurrency systems
- Strong analytical and problem-solving skills