

Ashish Kumar Cheruku

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EXPERIENCE

REVVY AI, LLC | AI ENGINEER (FREELANCER)

Aug 2025 – Nov 2025 | Remote

Intelligent Incident Triage and Root-Cause Agent

- Architected a Supervisor-Worker agent system to ingest observability data and correlate service dependencies.
- Engineered a "Silent Failure" detector with sliding window buffers, **reducing MTTR by 40 percent** via automated root-cause analysis.

Distributed Job Matching and Marketplace Engine (Go Backend)

- Designed a Matching Engine utilizing Time-Window Batching and Bipartite Matching to solve the Latency-Fairness-Quality trilemma.
- Scaled infrastructure using H3 Geo-Sharding and Consistent Hashing, **supporting 5,000+ matches/sec at sub-50ms latency**.

Multi-Agent Text-to-SQL Framework

- Developed a LangGraph framework with Schema Linker and Query Planner agents to decompose natural language into SQL.
- Implemented a RAG-based Vector Store and self-correcting Validator loop, **achieving a 95 percent executable query rate**.

SMARTTRAK AI | DEVOPS ENGINEER

Feb 2025 – August 2025 | Remote

- Architected real-time backend infrastructure using FastAPI, optimizing database queries to minimize response latency.
- **Integrated Keycloak using OIDC Authorization Code Flow with PKCE**, implementing a custom FastAPI middleware for stateless JWT signature verification and granular RBAC enforcement.
- Containerized complex applications using Docker and orchestrated with Kubernetes, with seamless auto-scaling for production workloads handling 10,000+ concurrent requests.
- Provisioned Azure cloud infrastructure and networking, reducing operational costs while ensuring high availability.
- Optimized API structures and data serialization with frontend teams to boost integration efficiency and application performance.
- **Owned the full backend lifecycle** from API creation and containerization to deployment on an Azure-based Kubernetes stack.

BITS PILANI, ACADEMIC DIVISION | TEACHING ASSISTANT

May 2024 – Jan 2025 | Pilani

- Developed a full-stack MERN application to assist BITSAT aspirants with real-time admission tracking.
- Engineered a predictive feature enabling students to verify eligibility based on historical iteration scores.
- Collaborated with the academic division to design an intuitive interface, simplifying the counseling workflow.
- Enhanced university outreach by deploying a transparent score analysis tool for prospective students.

PROJECT

LMS,ERP SYSTEM

- Full-stack LMS/ERP Development
- **400+ active users (students+faculty)**
- React, FastAPI, MongoDB
- Digitized academic operations in Government college
- Led the project independently from initial concept to final deployment and maintenance.

[Application Link](#) || [Project Details Doc](#)

EDUCATION

BITS-PILANI, PILANI

DUAL DEGREE - M.Sc. ECONOMICS,
B.E. MANUFACTURING
2021-2026

SKILLS

FUNDAMENTALS

- DSA
- OS
- DBMS

PROGRAMMING

- Python
- C/C++
- Javascript/TypeScript

WEB (BACKEND)

- Fast API
- NodeJS
- Ruby on Rails
- GO
- Express

WEB (FRONTEND)

- React (JSTS)
- Next JS

DEVOPS

- Docker
- Kubernetes
- Terraform (IAC)

PS: I build self-correcting AI and scale systems to 10,000 requests, making "full-stack" projects look like a hobby.

LINKS

[GitHub](#) • [LinkedIn](#)

HOBBIES

I enjoy playing and watching football, exploring tech innovations, automating processes, designing RC planes and cars, and creating 3D designs using Fusion 360 for 3D printing.