

Mohammad Alhan Bellary

Software Engineer – Backend & Cloud Systems

Bengaluru, India | +91 8867634490 | alhanbellary123@gmail.com | linkedin.com/in/alhan-bellary | github.com/alhaannn | alhan.me

PROFESSIONAL SUMMARY

Backend Software Engineer (Python / Cloud) combining strong CS fundamentals (NeetCode 150), clean async API architecture, and modern DevOps skills. Built high-throughput FastAPI/Celery/Redis services, PostgreSQL-backed pipelines, and Kubernetes deployments with CI/CD.

TECHNICAL SKILLS

Languages: Python 3.13, SQL (PostgreSQL, MySQL), Bash

Backend Frameworks & Storage: FastAPI, Asyncio, Django, Pydantic v2, SQLAlchemy 2.0, Alembic, PostgreSQL

Distributed Systems & Caching: Celery, Redis, REST APIs, Microservices, Event-Driven Architecture, Rate Limiting

DevOps & Tools: Docker, Kubernetes (HPA), GitHub Actions, Jenkins, PyTest, Prometheus, Grafana, Linux, Git

CORE PROJECTS

High-Throughput AI Gateway & Task Processing Engine | *FastAPI, Celery, Redis, PostgreSQL, SQLAlchemy 2.0, GitHub Actions*

- Engineered an async FastAPI/Celery/Redis gateway handling 250+ concurrent requests at sub-50ms queue latency, by offloading long-running calls to a distributed task queue with dynamic retry and fallback policies.
- Cut external vendor egress costs by 28%, as measured by provider token usage, by implementing Redis semantic LRU caching and token-bucket rate limiting, backed by PyTest suites above 80% coverage.

Enterprise Multi-Agent Distributed Knowledge Microservice | *FastAPI, LangGraph, Qdrant, PostgreSQL, Docker Compose*

- Maintained sub-800ms time-to-first-token on SSE streaming endpoints while isolating long-running graph computations from the web thread, by building an event-driven FastAPI backend with state managed across worker nodes.
- Secured payloads by implementing middleware that redacts PII before state is persisted, and unified Qdrant search with PostgreSQL metadata queries through Pydantic v2 models.

Self-Healing SQL Analytics Engine & Execution Sandbox | *Python, PostgreSQL, SQLAlchemy, Connection Pooling*

- Improved first-pass query execution reliability from 61% to 89% with zero impact on primary replicas, by running queries on read-only PostgreSQL replicas with an error-feedback retry worker capped at 3.
- Prevented connection starvation by enforcing connection pooling, query timeouts, and human-in-the-loop interrupts for sensitive or high-complexity joins.

PROFESSIONAL EXPERIENCE & TRAINING

AI Technocrat Industry Training (Mandatory OJT, 120 Hours) | IIT DHARWAD | Dharwad | Sep 27 – Oct 22, 2027

- Containerized Python backend microservices with Docker and scaled multi-pod Kubernetes clusters with Horizontal Pod Autoscaling.
- Engineered Jenkins and GitHub Actions CI/CD pipelines with automated rollback scripts triggered by failed health checks.
- Instrumented Prometheus metrics and Grafana dashboards monitoring p50/p95/p99 latency, error rates, and cluster utilization.

Junior Software Developer (Internship), Heagl Technologies Pvt Ltd | Hubballi | Feb – May 2026

- Delivered 5 features across 2 production Django codebases, cutting feature turnaround by ~25%, by collaborating with senior developers.
- Resolved 15+ bugs, reducing debugging time by ~30%, by diagnosing defects with AI coding tools (Claude Code, Cursor).

EDUCATION & CERTIFICATIONS

AI Technocrat, NSQF Level 5.0 Professional Certification | IIT DHARWAD | Oct 22, 2026 – Oct 22, 2027

BCA, Information Technology, IBMR Business School | Hubballi | Sep 2023 – Jul 2026 | CGPA 7.66/10

Certifications: Oracle Certified Data Science Professional, Oracle, 2025 | AI Literacy, IBM, 2025 | Certified Product Manager (CPM), GeeksforGeeks

Awards: 1st Place, CheTech Hackathon (Chetan College), 2026 | Empathy Encryption Hackathon (UnsaidTalks), 2025