Meghana Eeranki

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Professional Summary

Final-year Computer Science (AI/ML) undergraduate passionate about backend systems and cloud automation. Skilled in developing scalable microservices, containerized deployments, and CI/CD pipelines. Experienced with observability tools and asynchronous API design, focused on building reliable, fault-tolerant applications that deliver **high availability and low latency**.

Experience

1. **Software Engineering Intern -** Prodigal AI Technologies Pvt. Ltd., Delhi — Mar 2025 – Oct 2025
   - Co-developed and deployed 6 containerized microservices using FastAPI, Docker, and AWS, sustaining > 99.5 % uptime.
   - Implemented custom middleware and caching logic, reducing API request failures by 38 % and improving reliability.
   - Engineered a robust CI/CD quality gate with Pytest and GitHub Actions, increasing code coverage from 42 % → 89 % across 120 + tests.
   - Designed an SQL-triggered Slack alert system with Grafana dashboards, cutting incident detection time to < 60 s.
   - Optimized query logic and indexing, improving response latency by 27 % and reducing CPU load by ~ 18 %.
2. **Project Contributor** - Autonomous Vehicle Data Pipeline, JNTUH - Hyderabad — Feb 2024 – May 2024
   - Built a Python–SQL data pipeline processing 1.2 M + telemetry logs for anomaly detection and trend analysis.
   - Automated ETL workflows, boosting preprocessing speed by 48 % and saving ~ 2 hours per dataset.
   - Improved detection precision by 11 % via optimized time-window aggregation and feature engineering.
   - Created Seaborn/Matplotlib dashboards, accelerating insight generation by 45 % for faculty analytics.
   - Documented data schemas and pipeline architecture, improving project reusability for 2 + research teams.

Projects

1. **Resilient Task Queue and Scheduler** — Jan 2025 – Mar 2025
   - Designed a distributed task-processing system using FastAPI, Celery, Redis, and RabbitMQ to handle high-volume background jobs.
   - Implemented auto-retry policies and exponential backoff, reducing job failure rate by 42 %.
   - Built an admin dashboard for task metrics and worker health using Grafana + Prometheus.
   - Scaled to process > 150 RPS while maintaining < 150 ms latency under concurrent workloads.
   - Automated Dockerized deployment and observability pipelines, cutting maintenance overhead by 35 %.
2. **Resource Monitoring & Auto-Recovery System** — May 2025 – Jul 2025
   - Developed a real-time system health monitoring framework using Prometheus, AWS EC2, and Python, capable of auto-restarting failed containers.
   - Reduced downtime by 44 % with proactive alerts integrated into Slack + CloudWatch.
   - Implemented resource anomaly detection using CPU/memory deviation thresholds, improving detection accuracy by 32 %.
   - Built Grafana dashboards displaying 20 + metrics (latency, CPU, I/O, error rate).
   - Integrated CI/CD pipelines for Docker image builds and blue-green deployments, cutting release time by ~ 50 %.

Skills

- **Programming Languages:** Python, Java, C/C++
- **Backend & Systems:** FastAPI, Microservices, Redis, System Design
- **Cloud & DevOps:** AWS (Lambda, CloudWatch), CI/CD, GitHub Actions, Prometheus, Docker
- **Databases:** PostgreSQL, SQL, SQLite
- **Developer Tools & Practices:** Git, Unix/Linux, Grafana, Unit & Integration Testing
- **CS Fundamentals:** Data Structures, Algorithms, Operating Systems, Computer Networks (TCP/IP)

Education

- **Visvesvaraya College of Engineering & Technology -** Bachelor of Technology - Computer Science (AI/ML)
  June 2023 – May 2026 | Hyderabad | CGPA: 7.5
  - **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, System Design, Computer Networks

Extra Curricular Activities

1. **J.P. Morgan Virtual Experience:** Completed simulated modules in system design and financial data analysis.
2. **Organizer, Code for Fun Hackathon:** Managed logistics and mentored 50+ participants in a college-wide event.