Omkar Podey

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Summary

Backend Engineer 3 YOE specializing in high-performance, secure, fault-tolerant microservices; containerized & deployed a performance-optimized Go-based Raft IAM on AWS—253 TPS at 60 ms latency, sub-3 s failover, 30% lower inter-node traffic.

Technical Skills

- **Programming languages** - C++, C, Java, Python, Go, JavaScript, PHP, jQuery, Shell scripting, SQL
- **Framework/Libraries** - Android, ReactJS, Django, Drupal, Symfony, Node.js, HTML, CSS, svelte, Flask, MVC, AJAX
- **Cloud & DevOps** - AWS(API Gateway, Elastic Load Balancing, EC2), Cloud computing, Docker, Jenkins, Kubernetes
- **Tools & Technologies** - Git, Postman, Selenium, GenAI, LLMs , PHPUnit, Jira, Grafana, Prometheus, Chrome DevTools
- **Databases** - MS SQL Server, PostgreSQL, MongoDB, firebase, Neo4j Graph Database

Experience

Software Development Engineer   11/2022 – 06/2024
Acquia (Drupal Acceleration Team)

- Spearheaded the development of a scalable, sandboxed Automatic Updates system for Drupal, a leading open-source CMS, ensuring zero-downtime deployment of critical security patches and boosting reliability for 350,000+ websites globally.
- Reduced update failures by 44% and sped up security patching through preflight checks, test driven development (TDD), sandboxed testing, and automated validation, improving maintainability and cross-team collaboration.
- Engineered RESTful API with caching and async processing; managed 50K+ components, boosting extensibility and adoption.
- Built logging and monitoring systems, reducing troubleshooting time by 43%; ensuring swift issue resolution for 350,000+ sites.

Associate Software Engineer   06/2021 – 11/2022
Acquia (Drupal Acceleration Team)

- Engineered CLI migration tool with batch processing, accelerating data transfers by 15% and enabling autonomous migrations.
- Orchestrated platform upgrade for 350,000+ sites, maintaining 99.9% uptime and performance benchmarks throughout transition.
- Decreased testing time by 32% through a Jenkins-based CI/CD pipeline, accelerating development and enhancing code quality.

Projects

Distributed Identity and Access Management System | *Go (Golang), AWS, Docker, PostgreSQL, Prometheus, Grafana*

- Built a distributed IAM system in Go, achieving 253 TPS, 60ms latency, and supporting 300 concurrent users with Raft-like leader election and fault-tolerant log recovery.
- Implemented spanning tree multicast, reducing network traffic by 30% while ensuring high availability and strong consistency.
- Designed heartbeat-based membership tracking with a lease mechanism and periodic broadcasts, enabling adaptive cluster management without global state. Achieved sub-5-second failure detection, increasing availability to 98.88%.

JournalBuddy | *Python, React, Llama 3.2-1B, RAG, FastAPI*

- Engineered LoRA fine-tuning on Llama 3.2-1B with rank-4 decomposition matrices, achieving 87% pattern recognition accuracy on just 100 therapy conversations while requiring only 2GB VRAM for journal analysis.
- Developed RAG architecture utilizing a 4-bit quantized Llama model, reducing memory requirements by 75% and inference latency by 65% while improving emotional insight extraction accuracy by 42%.

AgroLink Hub | *React Native, Node.js, SQL*

- Developed an app for the Smart India Hackathon, connecting farmers, buyers and warehouses, improving decision-making by 30% with real-time market data and custodial services.
- Enhanced accessibility and drove adoption across diverse agricultural communities by introducing multi-language support.
- Improved logistics with heuristic routing and real-time updates, reducing transportation time by 30% and improving operational efficiency.

Education

San Jose State University   San Jose, CA
Master of Science in Computer Science (3.9/4.0)   *09/2024 – 05/2026*
Coursework - Design and Analysis of Algorithms, Distributed Computing, Machine Learning on Graphs, Topics in AI

Pune Institute of Computer Technology   Pune, India
Bachelor of Engineering in Computer Engineering   *06/2017 – 06/2021*
Coursework - Algorithms, Computer Networks, Machine Learning, Operating Systems, High Performance Computing

Additional Experience and Achievements

- Publication - "Smart Surveillance and Tracking System using Resnet and Tesseract-OCR" 2021 IEEE.
- Current Open-source Maintainer for Automatic Updates and Paragraph migration module on Drupal.org.
- Directed a team of 5 to plan and execute a Capture the Flag (CTF) cybersecurity competition, engaging 150+ participants across Pune and focusing on challenge design.