Param Manoj Bhavsar

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Summary

Software Engineer with 4+ years of experience in designing and optimizing distributed systems and microservices. Proven track record in leading cloud migration initiatives, building scalable API gateways, improving performance and reliability, and implementing automated testing and deployment strategies to ensure seamless delivery and system resilience.

Work Experience

Eaton July 2024 – Present

Software Engineer *Galesburg, MI*

- Designed and implemented event-driven telemetry pipeline (.NET Azure Functions, Service Bus) ingesting device metrics for 200K+ customers; improved delivery reliability to 99.9% and cut processing latency 35%.
- Built AI-driven API testing workflow (OpenAI + agent orchestration) raising coverage 80%→90% and cutting authoring time 60%, reducing escaped defects.
- Engineered an automated test framework for connected BLE mesh devices (Go, C++, Python, Azure), cutting release cycle time 30→10 days (3× faster).
- Architected analytics platform unifying plant and product cloud data, enabling defect prediction and recall readiness.
- Coached 6 Capstone students in designing BLE mesh and firmware device simulation.

HSBC January 2022 – July 2022

Senior Software Engineer - Commercial Banking *Pune, India*

- Led multi-country onboarding of payment processing microservices, extending support to 30+ payment types across 4 new jurisdictions; unlocked $150M new annual transaction volume.
- Worked on Banking-as-a-Service API platform (API Gateway, RSA encryption, microservices) serving 18K+ corporate clients and securing $3T+ annual volume, improved auth throughput by 20%.
- Optimized staff ops portal (CloudFront + caching) cutting median page response by 60%. (P95 from 2s→800ms)
- Drove cross-team design reviews (Payments + Security) aligning on tokenization strategy and rate limiting risk model.

HSBC July 2019 – December 2021

Software Engineer - Commercial Banking *Pune, India*

- Decomposed monolith into 7 microservices (Java, Spring Boot, MuleSoft), scaling throughput 95K→410K req/s and reducing p99 latency 180→58ms (-68%) via async messaging, circuit breaking, and cache warming.
- Contributed to real-time fraud detection platform (Go, Kafka, Flink, K8s) sustaining > 5K TPS, p95 detection 780 ms (median 320 ms) and false negatives -27% (manual review backlog -15%)
- Delivered high-throughput notification service (Java, React, IBM MQ, Kafka) supporting 10K+ corporate customers; achieved 99.9% delivery, P95 latency < 800ms.
- Designed token-bucket rate limiter (Redis + Lua) sustaining 120K req/s with p99 < 40 ms
- Implemented payment tracking and authorization UI (React, Redux) driving 10% YoY increase in active users.
- Built blue/green deployment pipeline (GitHub Actions + Terraform) cutting rollout time form 30 min→9 min.

Education

The Ohio State University, Columbus August 2022 - May 2024

MS in Computer Science and Engineering

Pune Institute of Computer Technology, India July 2015 - May 2019

Bachelor of Engineering in Computer Engineering

Projects

X API AI Agent

- Created an X Data Retrieval AI code agent using OpenAI and smolagents that processes input description, generates the corresponding API queries, executes them, self-corrects when necessary, and displays the results to the user.

Technical Skills

- **Programming Languages:** Java, Python, C# (.NET), Go, TypeScript, JavaScript
- **Distributed Systems:** Kafka, Event-Driven, Streaming (Flink), gRPC, Caching (Redis, Hazelcast)
- **Databases:** Oracle Database, MySQL, PostgreSQL, MongoDB, Redis
- **Libraries & Frameworks:** Spring Boot, MuleSoft, ReactJs, Redux, Zephyr RTOS
- **Cloud Platforms & Infra:** AWS, Azure, Cloud Foundry, Terraform, Docker, Kubernetes
- **DevOps & Tooling :** GitHub Actions, Jenkins, Observability (AppDynamics), Swagger/OpenAPI
- **Security & Quality:** Load/Perf Testing, Threat Modeling, IAM Least Privilege, Static Analysis