MANJUNATHA K J in

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Backend engineer with deep experience in Golang, microservices, and distributed systems. Skilled in building secure, high-performance backend platforms, designing reliable workflows, and improving system scalability and developer efficiency. Strong background in fintech systems and API gateway engineering.

SKILLS

Back-End Development: Go (Golang), Node.js, Java, Python

Technologies: Microservices, CI/CD, PostgreSQL, MongoDB, Redis, RabbitMQ, REST, gRPC, Docker, Kubernetes, AWS, Linux, Loki, Prometheus, Grafana, Temporal Workflow

Practices: High-availability systems, API security, Plugin framework design, Logging & Observability, Distributed systems, Unit testing, Agile development

EXPERIENCE

YAPPES TECHNOLOGIES, Bengaluru

Software Development Engineer 2   March 2025 – Present

API Gateway & Platform Development (Golang, Python, Node.js)
- Designed and developed multiple **high-performance gateway plugins**, including:
  - **mTLS Plugin** – certificate parsing, SAN validation, fingerprint verification, certificate rotation, and dynamic trust-store sync from Redis.
  - **MessageSignaturePlugin** – HMAC-based request signing using headers, query parameters, and request body hashing.
  - **Encryption/Decryption Plugin** – symmetric and asymmetric encryption support with AES/RSA, payload-level security, and on-the-fly decrypt + forward.
  - **JSON ↔ XML Live Transformation Plugin** – real-time bidirectional transformation of request and response bodies without affecting latency.
  - **JWTPlugin** – Access token validation, zero-allocation optimizations for benchmark performance, and high-speed claims extraction.
  - **VerifyHeadersPlugin** – strict and regex-based header validation for API policy enforcement.
  - **IP-based Access Control Plugin** – CIDR/IP allow/deny policies with high-efficiency request filtering.
  - **LoadBalancer Plugin** – built a custom gateway-level load balancer supporting **Round Robin** and **LRU** algorithms for efficient traffic distribution.
  - **Advanced Routing Plugin** – dynamic route redirection allowing endpoints to be routed to alternate paths based on policies and conditions.
- Built secure authentication and authorization layers using **JWT, OAuth2, API key policies, and signature-based validation**.
- Implemented **liveliness/readiness probes**, custom health checks, and deep **Prometheus metrics** for gateway observability.
- Integrated **Loki** for centralized logging and optimized ingestion + querying for faster debugging workflows.
- Developed reusable **mock API infrastructure** across the platform to speed up internal development and testing cycles.
- Implemented **platform-wide alerting & notification service** with email/SMS integrations and retry logic.
- Contributed to improving **Kubernetes deployments**, scaling strategies, resource optimization, and automated gateway rollouts.

NEW STREET TECHNOLOGIES PVT LTD, Bengaluru

Software Engineer (Backend)   November 2022 – February 2025

Workflow Orchestration (Golang, Node.js & Java)
- Developed **Temporal-based workflow orchestration service** replacing the legacy lifecycle module.
- Migrated all service-level workflows from API/Queue communication to **Temporal signals**, increasing workflow speed significantly.
- Ensured reliability and consistency across distributed workflows, improving overall system throughput.

Loan Origination & Management System (Golang, Node.js)
- Built a unified LOS & LMS system for **Federal Bank, Dhanalakshmi Bank, and KVB**.
- Designed a high-performance microservices architecture using PostgreSQL, RabbitMQ, Redis.
- Achieved **40% reduction in loan processing time** and **30% database performance gain** via query optimization.
- Enhanced messaging throughput to **10,000+ msgs/sec** using RabbitMQ optimization techniques.
- Upgraded BANK and Lifecycle modules, improving system responsiveness by 40%.

EDUCATION

PES UNIVERSITY   Bengaluru, Karnataka
B-Tech - Computer Science and Engineering   August 2019 – June 2022

Government Polytechnic   Holenarsipura, Karnataka
Diploma in Computer Science and Engineering   August 2016 – May 2019

Murarji Desai Residential School   Davengere, Karnataka
SSLC / 10th   July 2013 – April 2014