Prasanna Kumar

Backend Engineer (Golang / Python) | Distributed Systems, Event-Driven Pipelines, Observability
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Summary

Backend engineer with about 3 years of experience building Golang and Python microservices, real-time event pipelines and observability tooling for an AIOps and IT operations automation platform. Worked with Cassandra/ScyllaDB, NATS and Prometheus in production, and integrated LLM-based incident analysis into operations workflows.

Technical Skills

Languages: Golang, Python, SQL, JavaScript, TypeScript; familiar with Java
Backend: Gin, Flask, Django, FastAPI, REST APIs, Microservices, Event-Driven Architecture, WebSockets
Data & Messaging: Cassandra, ScyllaDB, PostgreSQL, MySQL, Redis, NATS, Kafka
Observability: Prometheus (custom exporters), SNMP, Metrics, Alerting, Telemetry
DevOps: Docker, Kubernetes, GitHub Actions, CI/CD, Linux
Frontend: Angular (Module Federation), React.js, HTML/CSS **Security:** OAuth 2.0, JWT, RBAC, Google SecOps API
AI: LLMs, LangChain, Retrieval-Augmented Generation (RAG), OpenAI API

Professional Experience

Senior Software Engineer Jan 2024 – Present
Algomox Pvt Ltd (AIOps, IT Operations Automation, Cybersecurity) *Bengaluru, India*

- Designed and delivered 10+ independently deployable microservices in Golang (Gin) and Python (Flask/Django) with Cassandra/ScyllaDB (GoCQL) and REST APIs for an enterprise AIOps platform.
- Built NATS-based event ingestion and processing pipelines sustaining 50,000+ events/sec with sub-100 ms alert propagation across distributed infrastructure.
- Developed real-time monitoring, event enrichment, alert correlation and automated ticketing workflows, contributing to a 40% reduction in MTTR.
- Wrote Prometheus exporters for Node, SQL, NoSQL and SNMP targets, expanding infrastructure observability coverage by 60% across multi-cloud environments.
- Built an LLM-assisted incident analysis workflow with LangChain that reduced Level-1 ticket handling time by 50%, and a RAG pipeline over ITSM documentation that improved first-response resolution accuracy by 45%.
- Led migration of platform UI components to an Angular micro-frontend architecture with Module Federation, enabling independent frontend releases.
- Integrated Google SecOps APIs with scoped access controls for centralized log ingestion and security investigation.
- Built GitHub Actions CI/CD pipelines that build Docker images, run tests and deploy to Kubernetes.
- Mentored 4 junior engineers through code reviews, documentation and pair programming.

Full Stack Developer Intern Aug 2023 – Sep 2023
Oasis Infobyte *Dharwad, India*

- Built a MERN e-commerce application with cart, checkout and order management in six weeks, secured with JWT authentication, bcrypt password hashing and role-based access control.

Software Developer Intern Jan 2023 – Jul 2023
DocYardHQ *Dharwad, India*

- Implemented JWT and OAuth 2.0 authentication with token lifecycle management and session-scoped access control, supporting 5,000+ user accounts.
- Built a WebSocket-based monitoring system across 8 services with stakeholder alerts within 5 seconds of a failure.

Projects

High-Availability Voting Platform *Golang, Gin, Cassandra, Docker*

- Built a distributed voting backend with JWT-secured REST APIs and bcrypt password hashing, designed for 10,000+ concurrent votes at sub-200 ms response time on Cassandra, containerized with Docker.

Algorithmic Trading and Monitoring Platform *Python, FastAPI, MetaTrader 5 API*

- Built a Python application that ingests market data, evaluates trading signals and executes configured strategies through the MetaTrader 5 API, with a FastAPI dashboard for monitoring, configuration and backtesting.

Education

B.E. in Computer Science 2020 – 2024
SDM College of Engineering and Technology, Dharwad (VTU) *CGPA: 8.65/10*

Achievements

- All India Rank 2 in Algostrike (IIT Dharwad contest); 250+ LeetCode problems; 5-star HackerRank.