

Bhupender Yadav

Backend Engineer | Golang | Microservices | 4+ Years

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Backend Engineer with **4+ years of experience** designing and operating scalable backend systems for SaaS and eCommerce platforms. Specializes in **Golang, Node.js**, event-driven microservices, **Kafka, AWS**, databases, and production observability. Delivered measurable improvements in cloud cost, throughput, latency, reliability, and developer operations through system design, performance optimization, and hands-on ownership in production.

TECHNICAL SKILLS

- **Languages & Core Engineering:** Golang, Node.js, TypeScript, JavaScript, Rust, DSA, OOP, System Design, Concurrency
- **Databases & ORM:** PostgreSQL, MySQL, MongoDB, ClickHouse, Redis, sqlc, Sequelize, Prisma, Mongoose, Caching Strategies
- **APIs & Architecture:** Microservices, REST, gRPC, GraphQL, WebSocket, Multi-tenant Architecture, API Design, Distributed Systems
- **DevOps & Infrastructure:** Docker, Kubernetes (K8s), Terraform, HCL, Nginx, Linux, Git, GitHub Actions, CI/CD Pipelines, BSR
- **Cloud Platforms:** Amazon Web Services (AWS), Google Cloud Platform (GCP), Lambda, SQS, Serverless Architectures, Cloud Cost Optimization
- **Messaging & Event-Driven Systems:** Apache Kafka, RabbitMQ, AWS SQS, Redis Pub/Sub, Asynchronous Processing, Event-Driven Architecture
- **Observability & Monitoring:** OpenTelemetry (OTel), Prometheus, Grafana, SigNoz, Loki, Tempo, Metrics, Traces, Logs, Alerting, Dashboards
- **Engineering & AI:** Unit Testing, Code Review, Prompt Engineering, LLM API Integration, AI-Assisted Development Workflows
- **Security:** JWT, Symmetric/Asymmetric Encryption, Cryptographic Algorithms, AES-256, RSA, Hashing, Data Integrity, Rate Limiting, TLS

EXPERIENCE

SOFTWARE ENGINEER (Bharti Airtel - Gurugram, Haryana, India)

May 2026 - Present

- Developed features for **i360**, Airtel's **Golang** inventory platform tracking lifecycle state of India-wide hardware like IPTV boxes and routers.
- Migrated APIs from **Hasura GraphQL** to native **PostgreSQL** with **sqlc**, improving response time by **3x** and adding end-to-end type safety.
- Replaced interval-based cron jobs with an **event-driven Redis queue**, processing data on trigger and cutting report wait time by **90%**.

SOFTWARE ENGINEER (GoKwik - Gurugram, Haryana, India)

July 2025 - April 2026

- Shipped **KwikChat backend services** at GoKwik using **Golang, Node.js**, and **AWS** on an event-driven microservice architecture.
- Built a **Kafka-based campaign service** for event processing, reducing message failures and improving delivery stability during peak loads.
- Optimized **AWS Lambda** and **SQS** workflows, reducing cloud costs by **23%** while simplifying processing logic across interconnected microservices.
- Implemented **SigNoz metrics**, distributed tracing, and alerting, instrumenting API latency, DB query time, and **P50/P90/P99** percentiles.

SOFTWARE ENGINEER (CIMET - Jaipur, Rajasthan, India)

January 2025 - June 2025

- Enhanced CIMET's Australian **SaaS comparison platform** by delivering features that streamlined procurement, quoting, and sales workflows.
- Launched a **Golang microservice** with **Kafka** for **real-time** sales lead processing, increasing lead throughput by **30%**.
- Designed asynchronous Kafka workflows that decoupled services, improved data-pipeline reliability, and increased overall system responsiveness.
- Exposed **GraphQL APIs** backed by **Elasticsearch**, improving query performance for real-time analytics, discovery, and search-heavy workflows.

SENIOR ASSOCIATE TECHNOLOGY (Flexiele - Gurugram, Haryana, India)

March 2022 - January 2025

Promoted from **Technology Associate** to **Senior Associate Technology** in April 2024 for performance, ownership, and team leadership.

- Built and scaled a **multi-tenant SaaS HRMS platform** serving **50+ enterprise clients** and over one million employees on shared infrastructure.
- Developed a **Golang notification service** with **RabbitMQ** for HRMS workflows, reducing delivery latency and improving message delivery by **25%**.
- Optimized **Node.js** startup and dependency-loading workflows with concurrent asynchronous processing, reducing application startup time by **13%**.
- Automated approval workflows processing **300K+ monthly requests**, reducing turnaround time by **60%** and improving efficiency by **40%**.
- Designed and maintained **REST APIs** supporting **120+ business operations**, adding reusable middleware and improving processing speed by **20%**.

PERSONAL PROJECTS

SETU (<https://github.com/aaffriya/setu>)

June 2026 – Present

- Architected **Setu**, a self-hosted IoT controller shipped as a single static **Go binary** with an embedded **SvelteKit UI**, running fully offline.
- Engineered a bounded **automation engine** with time- and device-based triggers, action validation, and **webhook support** for external systems.
- Optimized the runtime to operate within **128 MB RAM** and consume only **5-10 MB** on low-resource IoT hardware such as routers and Raspberry Pi.
- Implemented **MAC address based device identity** with discovery, scan support, **room grouping**, and device level **scene control**.

CIPHER ROAD (<https://cipherroad.aafriya.in>)

July 2024 – Present

- Architected a **self-hosted, end-to-end encrypted real-time chat platform** keeping message content encrypted across all network intermediaries.
- Built the backend on **Bun** with **Elysia** and **TypeScript** to support efficient request handling, type-safe services, and self-hosted deployment.
- Implemented an **RSA-based key exchange** with per-session **AES-256 encryption** and JWT authentication to preserve confidentiality and integrity.
- Engineered a **WebSocket layer** with Redis Pub/Sub fan-out, **Nginx Unix-socket routing**, rate limits, presence, typing, and attachments.
- Automated multi-arch **Docker** builds and **CI/CD** pipelines via GitHub Actions Buildx for consistent, **repeatable production deployments**.

SOFT SKILLS

- Provides **technical leadership** by mentoring junior engineers, reviewing designs, and guiding teams toward reliable delivery and project outcomes.
- Rapidly learns unfamiliar technologies and applies them to changing product requirements, production incidents, and process improvement.
- Collaborates with engineers, product teams, and stakeholders, translating complex backend decisions for technical and non-technical audiences.

ACHIEVEMENTS

LeetCode: Solved **150+ data structures and algorithms problems** in timed contests, strengthening reasoning and implementation accuracy.

EDUCATION

BACHELOR OF ARTS (BA), Rohtak

Maharshi Dayanand University – October 2020

12TH IN PCM, Rewari

Board of School Education Haryana – May 2016