

Yashwanth Krishna B

Senior Software Engineer • Go • Payments, Card & Loan Management Systems

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Senior backend engineer specializing in high-performance Go and fintech workflows. Sole architect of a Visa- and Mastercard-certified Card Management System and switch (ISO 8583) and a greenfield Loan Management System, both live in production across MENA and the Philippines. Strong in system design and low-level design, event-driven architecture (NATS, store-and-forward), 3DS and CAVV authorization, performance testing and scaling, and security best practices — with a track record of driving code review quality, team architecture case studies, and agile delivery, plus direct client and C-level communication.

EXPERIENCE

Senior Software Engineer, Stitch

Feb 2023 – Present

Platform Lead (2024) • Payments and Lending Lead – 20-engineer team (2025) • Production & Product Stability Lead (2026)

- **Card Management System — Visa & Mastercard certified.** Sole architect and engineer of the card switch: implemented the Visa and Mastercard specs from scratch, ISO 8583 message parsing, ~190 Visa test flows in a month, and a Visa test simulator (moov) to drive scheme certification. Later extended to multi-network support with pluggable network parsers and per-network field filters.
- **3DS authentication.** Implemented the 3-D Secure flow end-to-end: card enrollment webhooks fired on card creation, and CAVV cryptogram validation on 3DS-authenticated authorization transactions within the switch.
- **Event-driven architecture.** Designed the platform's event-driven layer on NATS, including a store-and-forward (SAF) design guaranteeing durable delivery of reversal transactions and notification webhooks. Diagnosed and resolved a production degradation where queue backpressure had been masked by synchronous processing.
- **Loan Management System — greenfield.** Built the entire loan service from a bare API spec, prototyped in two weeks, plus a reusable migration service with a data-transformer model that onboarded multiple production loan clients — including one client taken from kickoff to production go-live in 21 days. Now live with several clients.
- **AI tooling — MCP server.** Built a Model Context Protocol (MCP) server for the company's AI product, exposing platform and portfolio information and an automated credit-decisioning capability used in loan origination to assist the credit reviewer.
- **Agent Studio — production AI agent platform.** Architected, built hands-on, and now lead the team behind an agent studio that lets customers compose their own agents — brain, identity, tools, and guardrails — and simulate the full lifecycle before shipping. Powers credit-decisioning assistance, customer analytics and portfolio chatbots, and voice agents, and plugs into the workflow engine as a decisioning step. Live in production.
- **High-performance Go system design.** Designed and built the core Go microservices platform — Card, Customer, Product, Transaction, Partner and Ledger — on Kratos, gRPC, and Protocol Buffers, replacing a legacy Java stack. Authored the switching design pattern that routes transactions efficiently across services.
- **Payment methods architecture.** Built a second switch for wallet payments and a Grule rule engine powering risk (transaction accumulation and limits) and fee engines, integrated across both card and wallet switches; implemented posting rules, configurable chart of accounts, and ledger transaction versioning.
- **Performance testing, scaling & observability.** Load tested the ledger to 2,000 RPS with k6 and Grafana. Stabilized the Dubai wallet launch under a first-day traffic surge via latency log analysis and vertical scaling. Drove the Foodics go-live in Riyadh — 25 crore+ transactions in three weeks — through a custom batching connector and PostgreSQL query optimization.
- **Security best practices.** Built the platform security module: API authentication, AWS SigV4 request signing to prevent tampering, and gateway policy via Easegress and Nginx; led Zitadel adoption as the platform IDM.
- **Code review, LLD & engineering standards.** Reviewed ~80% of the codebase, set low-level design and code-style conventions, enforced conventional commits, and ran technical-debt and architecture reviews. Mentored engineers and ran team architecture case studies.
- **Production ownership & agile delivery.** Own high-severity production issues and escalations end-to-end, gatekeeping permanent fixes over workarounds. Established the production support function, trained and managed L1/L2/L3 engineers, and run production scrums and handover reviews.
- **Client-facing communication.** Gathered requirements and demoed directly to CEOs and risk, compliance and IT leadership in Jeddah and Riyadh, securing UAT conditional sign-off; served as payments SME and full codebase owner for the Dubai wallet launch.

- **Key product metrics & workflow.** Built a Workflow/BPM engine POC for loan origination and stood up a team to productize it; drove demo-led product improvements from client feedback.

Project Engineer, Intern, Wipro Technologies

Apr 2022 – Jul 2022

- Trained and deployed machine learning / deep learning models, built PowerBI dashboards, and integrated ML models into the web using Flask.

Full Stack, Intern, Introis Technologies

Jun 2021 – Sept 2021

- Built and maintained the company landing page (HTML/CSS/JS) and a Node/MongoDB authentication service with a companion Flutter mobile app handling login and session persistence.

TECHNICAL SKILLS

Languages: Go (Golang), Python, Java, JavaScript/TypeScript, SQL

Payments Domain: Card Management Systems, Loan Management Systems, Visa & Mastercard specs, ISO 8583 / MTI, 3DS, payment gateways, card & wallet switching, rule engines (Grule)

System Design: High-performance Go design, low-level design, microservices, event-driven architecture, message queues (NATS), store-and-forward (SAF) design, webhooks, caching layers (Redis), API design (gRPC, Protocol Buffers)

AI / GenAI: Agentic systems, MCP servers, agent orchestration, LLM tool-calling, RAG (embeddings, vector search), guardrails, agent simulation & evaluation, voice agents, hosted & local LLMs (OpenAI/Anthropic, Llama), vector databases

Databases & Storage: PostgreSQL, MariaDB / MySQL, MongoDB, query optimization, GORM, etcd

Cloud & Infrastructure: Docker, Nginx, Easegress, Zitadel, CI/CD

Quality & Observability: Go unit testing & coverage, performance testing (k6), Grafana, monitoring & tracing, effective code review, security best practices

EDUCATION

B.Tech, Electronics & Communication Engineering, Sri Sairam Institute of Technology *Jul 2018 – Apr 2022*

CGPA: 7.9 / 10. Coursework: Networking, Digital & Wireless Communication, Computer Architecture, Data Structures, Signal Processing, Microprocessors.

Projects & Awards

- **Winner, Pals NexGen 3D Hackathon** (2021) — 3D-printed smart home system, among 50 colleges.
- **Secretary, Robotics Club** — hosted events on robotics and drones; Team Lead, Balloon Satellite Project.
- **Academic projects:** LoRa-based weather station with web forecasting portal, ESP8266 wireless smart-switch system, and a NodeMCU IoT irrigation system.

CERTIFICATIONS

Machine Learning (Coursera) • Advanced Java Programming (Udemy) • Applied Linux Command Line & Shell Scripting (Udemy) • Data Science (NIIT) • Web Development Masterclass (Udemy) • Google IT Support (Coursera) • IP Addressing & Subnetting (Coursera)