

KUMAR KUSHAL

Founder, JioMoney & Reliance Payments Bank · Founding CTO, Reliance Jio · Fractional CTO & Board Member

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EXECUTIVE PROFILE

Technology executive with 25+ years building AI-driven, regulated platforms at consumer and industrial scale — from machine-vision and robotics systems for Fortune 500 manufacturers, to ML-powered payments and commerce for 350M+ Jio users, to today's AI-native companies in trade finance and digital health. First technology hire and founding CTO of the Reliance Jio digital ecosystem, founder of JioMoney and Reliance's payments-bank platform, and founder-CEO of Kanhatech; today a fractional CTO and founding board member across five concurrent ventures.

Builds and runs production platforms with an orchestrated framework of specialized AI agents under written governance — decision logs, independent QA gates and human-gated irreversible operations — so a deliberately small human team delivers the output of a conventional engineering organization. NGDB.AI and CognitiveMind.ai were both taken from concept to live, revenue-generating products in 2026 this way.

450M+

users served

\$20B+

annual transaction volume

\$120M+

technology budgets managed

0 → 600+

engineers hired at Jio

CORE AI EXPERTISE

Agentic AI & LLMs: Multi-agent software engineering frameworks · multi-LLM orchestration (Claude, GPT, Gemini) · MCP · ambient clinical AI and AI-drafted documentation · AI governance with human-in-the-loop controls

Applied ML & decisioning: Real-time credit underwriting · fraud detection in the money path · explainable AI (SHAP) · demand forecasting and dynamic pricing · recommendation, churn and lifetime-value models

Edge AI, IoT & vision: Biosensor early-warning systems · computer-vision quality inspection · predictive maintenance · digital twins · industrial robotics and autonomous process control

Responsible & regulated AI: HIPAA · PCI-DSS Level 1 · SOC 2 · GDPR · KYC/KYB/AML · Safe Harbor de-identification · model interpretability and audit trails

CAREER HIGHLIGHT — RELIANCE JIO (FORTUNE GLOBAL 100)

Founder of JioMoney and Reliance's payments-bank platform, founding CTO of the Jio digital ecosystem, and founder-CEO of Kanhatech, the Reliance subsidiary that delivered Jio's launch hardware and payments SaaS — taking India's largest consumer technology launch from a blank page to 350M+ users.

JioMoney & Reliance Payments Bank | Founder

2011 – 2018

Mumbai · jiomoney.com · India's largest data-powered digital payments and mobile banking platform

- Founded JioMoney and built it into a full mobile-banking and payments stack — digital wallet, UPI, merchant payment gateway, bill payments and payments-bank services — scaling to 350M+ wallets, 1B+ transactions a year and \$20B+ in annual volume at sub-second latency and 99.9% uptime.
- AI and ML in the money path:** real-time fraud detection, credit scoring, churn prediction and customer-lifetime-value models; RPA agents automating customer support, dispute resolution and compliance monitoring.
- Regulated from day one:** RBI, KYC/AML and PCI-DSS Level 1 compliance with tokenization and automated KYC workflows, including Aadhaar biometric e-KYC at national scale — zero major security breaches over six years.
- Integrated 50+ banking partners and the Jio telecom billing system; pioneered subscription and transaction-based payments-as-a-service revenue models; reached the #1 market position in Indian mobile payments.

Reliance Industries — Jio Digital Ecosystem | Founding Chief Technology Officer

Jan 2012 – Dec 2017

Mumbai · jio.com · jiomart.com · ajio.com

- First technology hire:** built the engineering organization from zero to 120, and to 600+ professionals by departure; owned a \$120M+ annual technology budget with Fortune Global 100 financial governance.
- Defined technology strategy across telecom BSS, digital banking, retail commerce and payments; architected the MyJio super-app for 350M+ users with API-first partner integration.
- ML at 350M-user scale:** fraud, personalization and retention models cut fraud false positives 60%, lifted cross-sell 40% and retention 30%, delivering \$80M+ in measured business value; built a consumer data-monetization engine on an IoT → edge → cloud → analytics pipeline.
- Commerce:** JioMart unified 12,000+ Reliance stores with real-time inventory and AI recommendations (\$100M+ monthly GMV from launch); AJIO reached \$200M+ first-year revenue at 45–50% gross margin.
- Led \$220M of infrastructure deployments (\$110M Cisco network, \$110M Samsung LTE) at 99.99% uptime; moved AI/ML and data-lake workloads to AWS and Azure alongside Jio's own cloud.

- Secured partnerships with American Express, Visa, Mastercard, FIS Global, Samsung, Infosys, Cognizant and Tech Mahindra; worked with McKinsey (strategy), Deloitte (fintech) and EY (compliance).

Kanhatech Solutions (kanhatech.com) — Reliance Jio subsidiary | Founder & CEO

Nov 2011 – Mar 2018

Bangalore / Mumbai · devices, payments and banking SaaS behind the Jio launch

- Founded and ran the Reliance-backed subsidiary that delivered the device backbone for Jio's national launch: 40M fiber set-top boxes, 10M LTE MiFi routers, 500K Linux mPOS devices and 5M fingerprint readers for Aadhaar e-KYC onboarding.
- **Cost engineering at national scale:** set-top boxes at \$24 a unit, MiFi routers at \$18, mPOS at \$35 and full POS with printer at \$45 through modular design — against \$100–300+ incumbent POS terminals, opening card acceptance to India's 50M+ unserved merchants.
- Built Visa/Mastercard-certified SaaS for mobile payments, banking, POS and compliance, with edge processing for real-time transaction handling and fraud screening.
- Ran the company under public-company-grade governance for its Fortune Global 100 parent — finance, legal, global vendor contracting and HR — and led business and technology strategy for JioMart, AJIO, the Reliance B2B marketplace and Jio Financial Services.

CURRENT PORTFOLIO — CONCURRENT ASSIGNMENTS

NGDB.AI | Founder, CEO & Chief Architect

Jun 2026 – Present

PE-backed · Seattle, WA · AI-native operating system for global trade finance, replacing the Letter of Credit for sub-\$10M trades

- Conceived and built a production trade-finance and digital-banking platform targeting the \$2.5T global trade finance gap: commercial-card pre-authorization delivers an LC-equivalent, irrevocable payment guarantee in ~30 seconds at 30–80 bps, with a <4-hour digital LC lane (UCP 600, SWIFT MT700) for larger trades.
- **AI credit engine:** real-time underwriting on consented open-banking cash-flow data (Plaid/Quilt, Finicity, MX), P99 decisions under 2 seconds with 100% SHAP explainability, plus a sub-100ms fraud gate inside the money path.
- **Agentic engineering model:** platform built, verified and operated by an orchestrated framework of specialized AI agents under written governance — decision logs, independent QA gates and human-gated irreversible operations.
- Shipped 20+ live microservices (Java 21/Spring Boot, Kafka exactly-once, PostgreSQL, Redis) across ledger, payment orchestration, card pre-auth/capture, supply-chain finance, KYB and FX — designed for 10,000+ TPS and 99.9% uptime on Google Cloud Run with multi-cloud Terraform.
- Launched a financed B2B marketplace with KYB-verified catalogues, 3-round negotiation, FX transparency across 9 currencies and embedded SCF at checkout (seller paid on delivery, buyer up to 90-day terms) — 300+ live listings, 9-language frontend including RTL.
- Blockchain document certification (Hyperledger Fabric, dual SHA-256/SHA3-256) and bank-grade standards: ISO 8583, ISO 20022 pacs.008, SWIFT MT, NACHA, SEPA Instant, UPI/IMPS/RTGS. Live at ngdb.ai with a revenue-generating proof-of-concept since April 2026; driving bank-sponsor, card-network and data-aggregator partnerships.

CognitiveMind.ai | Co-founder & Chief Technology Officer

May 2026 – Present

Seattle, WA (remote) · HIPAA-conscious telehealth nutrition platform connecting patients with registered dietitians by video

- **AI clinical layer:** ambient scribe with real-time transcription and local-first inference; AI-drafted SOAP notes and insurance claims (CMS-1500 / EDI 837P, CPT/ICD-10 coding) with Safe Harbor de-identification; Chrome extension for provider workflows.
- Designed and shipped the full platform to production (live since August 2026): booking and Stripe payments, provider onboarding and KYC, scheduling, own WebRTC video with TURN, clinical notes, AES-256-GCM encrypted messaging and an audited admin console — TypeScript end to end (Hono on GCP Cloud Run, React 19, Neon Postgres/Prisma), CI/CD with test and staging gates.
- Built payer credentialing (CAQH, Availity, NPPE, PECOS, maker-checker approvals) and eligibility integration so the practice can contract with commercial insurers, Medicare and Medicaid as a group.
- Led go-to-market engineering: pre-rendered SEO across all 50 states and 124 metros, first-touch attribution to bookings, and outreach tooling that produced the first paying patient within weeks of launch; set the founding-dietitian commercial model and lead clinician recruiting.

LifeSignals, Inc. | Fractional CTO

2020 – Present

Mountain View, CA · AI-enabled wireless biosensor platform for continuous patient monitoring

- Leads an edge-AI biosensor platform tracking SpO2, ECG, temperature, BP and respiratory rate, with ML early-warning models, automated triage and an integrated HMIS backend (telehealth, health records, pharmacy).
- 40,000+ patients monitored in Indian government hospitals: 21,879 automated alerts, 864 arrhythmias detected, 8+ lives saved, ICU transfers down 30%, outpatient consultation cut from 110 to 14 minutes.

BlinkLink Technologies | Co-founder & Founding Board Member

Oct 2022 – Present

Carnegie Mellon-incubated · AI-driven short-form video commerce and influencer marketing

- Architected AI content intelligence (computer vision and NLP for automated metadata and curation) and ML conversion-funnel analytics linking content, creators and sales; enterprise SaaS at \$1,499+/month.

- Global delivery on a 450+ edge-location CDN with server-side rendering — sub-100ms loads at 99.99% uptime.

NGDM (ngdm.in) | Fractional CTO & Founding Board Member

2026 – Present

India · B2B supply platform delivering goods from manufacturers directly to SMEs, caterers and hoteliers

- Leads technology for a demand-aggregation model: digital ordering via app, WhatsApp, email and SMS, delivery within hours of order, and embedded working-capital credit through bank and NBFC partners.

EARLIER EXPERIENCE

ZilMoney Corporation | Global CTO

May 2024 – Jun 2025

US / EU / MENA · AI-native multi-tenant digital banking

- Delivered 12 core microservices on AWS EKS in 4 months with a 3-engineer, AI-assisted team — against a traditional estimate of 18–24 months, \$3–5M and 15–20 engineers (~\$0.5M, 85% lower cost).
- Deployed ML credit-risk and fraud models, AI-driven KYC/AML onboarding and embedded finance; PCI/PII tokenization at source, 99.97% uptime and zero security incidents at multi-billion transaction capacity.

Tiller Capital | Global CTO

Aug 2018 – Jul 2024

New York / Bangalore / Abu Dhabi · trade finance neo-bank

- Built a trade finance platform with ML-based credit profiling, real-time credit scoring on EU banking-ledger data and automated loan-approval and collateral-management workflows.
- \$50M+ monthly trade volume with under 0.2% default rates and a 99% reduction in chargebacks through ML-driven risk controls.

T-Mobile USA | Technology Architect

May 2023 – Aug 2023

Seattle, WA

- Led Fortune 100 payment-platform modernization and gateway vendor selection, including ML-based transaction routing and fraud detection, with PCI/PII tokenization at source across card, ACH, wallet and IVR channels.

Omniyat Holding (amal.com) | CTO

Apr 2021 – Jun 2022

Dubai / Iraq

- Built ML demand forecasting, dynamic pricing, recommendation engines and logistics optimization for a \$300M multi-category marketplace (VTEX, Oracle NetSuite, Infor WMS); reached 15% Iraq market share in 18 months.

Bilcare Research | CTO

Sep 2007 – Nov 2010

Phoenixville, PA / Singapore / Pune

- Led the \$19.58M acquisition of Singular ID (3.5x ROI); built pharmaceutical track-and-trace with RFID and sensor networks, ML counterfeit detection and SAP AutoID integration with IBM.

Access Shield International | CEO

2005 – 2007

Reston, VA

- Built a profitable biometric identity business: pattern-recognition and facial-recognition systems for US government and enterprise programs.

Optiwise, Inc. / Optiwise Oy | Founder & CEO

Feb 2000 – Nov 2005

Sunnyvale / Helsinki / Trivandrum · exited

- Built a \$12M/year industrial automation and robotics company serving AT&T Bell Labs, DuPont, Owens Corning, Exxon, Nokia, ABB, Cisco and Saudi Aramco; 50+ projects at 98% on-time delivery; patents in robotics control.
- Computer-vision inspection, predictive maintenance and autonomous process control: 30% less unplanned downtime (oil & gas), 15% yield gain (semiconductor), 20% energy reduction (paper), 35% throughput gain (automotive).

TECHNICAL STACK

Platform: Python / FastAPI · Java 21 / Spring Boot · TypeScript / Hono · Node.js · Go · React 19 · React Native · Kafka · PostgreSQL · Redis

Cloud: GCP Cloud Run · AWS EKS / Lambda · Azure · Kubernetes · Terraform (multi-cloud) · CI/CD with staged gates

Finance & health: UCP 600 · SWIFT MT · ISO 20022 / 8583 · NACHA · SEPA Instant · UPI · Plaid · Stripe · WebRTC · EDI 837P · CPT / ICD-10 · CAQH

EDUCATION & RECOGNITION

M.S., Robotics (AI focus): West Virginia University

B.S., Aerospace Engineering: Indian Institute of Technology Madras

Speaker: “Monetizing Tech and Leading Scalable FinTech” — Dubai fintech and blockchain events