Vipan Kumar

ENGINEERING LEADER | HEAD / DIRECTOR OF ENGINEERING | ENGINEERING MANAGER

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Brampton, Ontario, Canada (Greater Toronto Area) | Open Work Permit, no sponsorship required, available immediately

PROFESSIONAL SUMMARY

Engineering leader with 15 years (2011-present), from systems engineer to multi-team engineering leader running tech orgs of 21 to 25-30 across AI/ML, backend, frontend, mobile, DevOps and QA, including reporting to the CEO. Grew one engineering team from 1 to about 15, promoted 4 engineers into senior roles, cut AWS costs 22% and raised uptime to 99.95%. Delivered platforms and systems for Lenskart (later IPO on NSE/BSE), Walmart India KDP, Domino's India, Maruti Suzuki and Samsung R&D Institute, plus a GenAI SaaS since grown to US$2M ARR.

SKILLS

Leadership: Org building (0 to 15; 25-person orgs), hiring, appraisals, promotions, restructuring, cost reduction, client management, CEO reporting

Cloud and platform: AWS, Azure, GCP, Kubernetes, Docker, Terraform, CI/CD (GitHub Actions, Jenkins), SRE, observability (CloudWatch, Prometheus), disaster recovery, FinOps, multi-cloud GPU infrastructure

Architecture and languages: Multi-tenant SaaS, microservices, event-driven design, Java, Spring Boot, Node.js, TypeScript, Python, FastAPI, Kafka, PostgreSQL, MySQL, MongoDB, Redis

AI: GenAI in production, LLM integration, RAG, GPU inference, AI-assisted development (Cursor, Claude Code)

Security and compliance: SOC 2 Type 1, ISO 27001, RBAC/IAM, VAPT, OWASP, GDPR consent management

WORK EXPERIENCE

Principal Engineering Consultant (Retainer)

2026 - Present

Technical guidance on retainer for three clients; personally coded two of the three platforms.

- DroneCraft Rides (Sep 2026 - Present): sole architect and engineer of a video automation platform billing about US$3,600/month (₹300,000) for a rafting and bungee operator in Shivpuri, India, the exclusive licence holder, which sells the videos to all its partners. Turns site camera and drone footage into trimmed, branded landscape films and portrait reels. Stack: TypeScript, Node.js, React, Python, FastAPI, MongoDB, ffmpeg, AWS.
- ZodiacBee.com (Aug 2026 - Present, part-time): Canadian client, SEO platform for North America. Designed and built the full platform on Python, FastAPI and AWS, and supported execution and delivery with the client team. Launched 15 Oct 2026; marketing started for North America.
- Maruti Suzuki India, Active RFID Worker Safety System (Jan 2026 - Present): technical advisor; led the architecture of a system that locates workers, including which floor someone is stuck on, during fires and emergencies. Deployed March 2026; live in 4 plants.

OnGrid

Mar 2025 - Jun 2026

Software Engineering Manager (client-facing title: Associate Director of Engineering)

Gurugram, India. Background-verification SaaS for regulated banking and financial-services clients. 21-person tech org, 10 direct reports across backend, frontend, QA, DevOps and application engineering. Stack: Java, Spring Boot, Kafka, Debezium CDC, MySQL, AWS (RDS, CloudWatch).

- Promoted 4 engineers into senior roles by running appraisals for 10 direct reports, including development plans and underperformance cases.
- Improved release velocity 40% and cut production incidents 35% by introducing weekly releases, stronger CI/CD controls and clear production ownership.
- Cut AWS costs 22% and raised uptime to 99.95% through RDS rightsizing, CloudWatch observability and FinOps.
- Recovered 8.5 hours per engineer per week by designing and measuring an AI-assisted development pilot with 15 engineers, leading to org-wide adoption.
- Increased Kafka throughput 10x across 13 topics with no added infrastructure by fixing a JVM concurrency bottleneck.
- Led SOC 2 Type 1 implementation and delivered 13 production database upgrades with zero unplanned downtime via controlled MySQL and Debezium CDC migrations.

Dresma

Feb 2022 - Feb 2025

Technical Architect & Lead Engineering Manager, leading the engineering function (Nov 2023 - Feb 2025); Senior Engineering Manager (Feb 2022 - Oct 2023)

HQ USA; engineering in Gurugram, India. GenAI e-commerce content SaaS serving the US, UK and Europe; since grown to US$2M ARR. Entire tech org of 25-30 (AI/ML, DevOps, mobile, backend, frontend, QA) reported to this role, reporting to the CEO. Stack: Node.js, React, Python, Java; AWS, GCP, Azure and private GPU partners.

- Architected the platform that still powers Dresma, which has since grown to US$2M ARR on the same infrastructure.
- Scaled DoMyShoot and batch tools to 50,000+ brands and 9M+ images (about 500,000 images/month) by architecting cloud-native, multi-tenant GenAI pipelines.
- Reduced GPU servers from 12 to 5 (about 58% fewer) for the same output by designing a tiered priority queue across multi-cloud GPU capacity and cloud credits.
- Delivered first images in under 1 minute on the premium tier and 10-15 minutes on the standard tier against a 2-hour SLA, using priority queues on limited GPUs.
- Built in-house image models by benchmarking open-source models (SAM, YOLO, CLIP, SDXL) and training custom models on synthetic data.
- Cut hosting and processing costs up to 30% via infrastructure streamlining, deployment automation and performance tuning; led cost reduction and team resizing.
- Company-reported brand impact: up to 60% conversion uplift and 85% lower content costs.

Gigforce

May 2021 - Feb 2022

Senior Software Architect / Founding Engineer

Gurugram, India. On-demand gig staffing platform; US$3M pre-Series A led by Endiya Partners (Sept 2021). Grew the team from 1 engineer to about 15; backend, frontend, DevOps, mobile, analytics and QA reported to this role. Stack: Node.js.

- Helped secure the US$3M pre-Series A by building the platform behind the scale story.
- Grew the gig workforce from 100 to 4,000-5,000 workers across India (40-50x) as first engineer, building a self-serve two-sided marketplace.
- Built e-KYC, rostering, a matching engine and payouts for clients like Delhivery, Flipkart, BigBasket and Grab.

SignCatch Inc.

Sep 2019 - May 2021

Senior Software Architect, leading the engineering function (reporting to CEO)

Incorporated in California, USA; engineering in New Delhi. B2B retail-tech, POS and Retail Commerce-as-a-Service. Team of 25 across backend, frontend, mobile, DevOps, QA and AI. Stack: Node.js, Python, Kubernetes; AWS and Azure.

- Enabled the supply chain for Walmart India's Kirana Development Program (KDP) as exclusive tech partner, onboarding 500 kirana stores in beta and connecting them to Walmart replenishment centres.
- Grew the platform to 700+ retail locations (about 200 merchants + 500 KDP stores) with a multi-tenant, multi-vertical POS.
- Achieved ISO 27001 certification by aligning infrastructure and processes to security standards.
- Led the multi-cloud integration and migration (AWS core, Azure for Walmart KDP) as well as cost reduction and team resizing.
- Migrated legacy systems to microservices and grew a hyperlocal Android app to 100,000+ organic downloads in 6 months.

Domino's India (Jubilant FoodWorks)

Aug 2018 - Sep 2019

Lead Software Scientist

Noida, India. 10-person PHP to Java migration team.

- Moved a 1,200+ store network from offline to online POS, reducing store setup cost and speeding up new store launches.

Koovs plc

Nov 2016 - Aug 2018

Technical Lead

London, UK (AIM-listed 2014), India operations; worked with the UK team. Team of 3 engineers. Stack: PHP, Java, Microsoft Navision ERP.

- Tripled warehouse capacity from 2,000 to 6,000 orders/day with the same workforce by rewriting the supply chain system and automating warehouse operations.

V5 Global Services (Infield Infotech)

Feb 2016 - Nov 2016

Technical Team Lead

Delhi, India. Staffing and trade-marketing firm, acquired by FirstMeridian in July 2018. 8 direct reports.

- Rebuilt the entire architecture within 6 months for a workforce platform serving 10,000+ field workers across India.

Lenskart (Valyoo Technologies)

Jun 2013 - Feb 2016

Senior Software Engineer, then Technology Lead (from Sept 2014)

Delhi NCR, India. Early 10-person tech team; listed on NSE/BSE on 10 Nov 2025 (IPO about US$830M, valuation nearly US$8B).

- Scaled the platform from 300-500 to 8,000+ orders/day (16-25x) with the same small team, keeping it stable and cost-efficient.
- Initiated and led the tech for Home Eye Check-Up, growing it from 5 to 500 checkups/day over three years and from a 2-person team to a national network of optometrists and field staff.
- Led the migration from a Magento monolith to Java microservices with Redis, Kafka and MongoDB, removing downtime caused by re-indexing at scale.
- Built Virtual Try-On as sole engineer using 2D JavaScript Canvas; customers typically used it about 5 times per session.

Samsung R&D Institute (SRI)

Mar 2012 - Jun 2013

Software Scientist, then Senior Software Scientist

Bangalore, India. Chosen as one of six on the initial Tizen OS research team; promoted within 10 months.

Earlier: Aricent (now Capgemini Engineering), Software Engineer, Gurugram, India, Sep 2011 - Feb 2012; SchoolPad, Software Intern, Chandigarh, India, Jan 2011 - Jun 2011.

EDUCATION

Bachelor of Engineering (B.E.), Computer Engineering Thapar Institute of Engineering & Technology, Patiala, India — 2008 - 2011

Diploma in Computer Science Thapar Polytechnic — 2005 - 2008

CERTIFICATIONS

Leadership with AI ISB (Indian School of Business) Executive Education — 2025

20-week programme on AI, GenAI and Agentic AI strategy. Credential: https://www.credential.net/8fca11be-3d39-4c0f-8441-4ba1a1315897