Kunal Vyas

Halifax, Nova Scotia, Canada 🏠
+1-(902)-499-1616 📞
kunalhvyas@gmail.com ✉
in/kunal-vyas-40473138 in
https://kunalvyas.info 🌐

Driving engineering transformation at scale — building teams and platforms that harness AI not just in products, but in how we build, and continuously improve the business.

Core Competencies

- 20+ years of Engineering Leadership
- Team Scaling & Mentorship
- Data Platform Development
- AI/ML Integration, DevOps & CI/CD

- Strategic Planning & Risk Analysis
- Budget Management
- Cloud, Microservices & Enterprise Architecture

Experience

💼 Nielsen Inc. (Sports) / Since Jan 2020

Director, Data Services | 2024 – Present

- ❖ Architected and delivered cloud-native data platform that became the analytical foundation for the $80M sports business, reducing data infrastructure costs by 40% and enabling real-time analytics for 100+ stakeholders.
- ❖ Drove 35% productivity gain across data engineering organization by pioneering LLM code generation workflow, enabling the team to ship 1-3 additional features per quarter while maintaining code quality standards.
- ❖ Reduced critical business latency for data processing from 2 weeks to 45 minutes through ETL automation, directly enabling same-day advertising decisions for 80% of our clients.

Sr. Engineering Manager | 2022-2024

- ❖ Led end-to-end automation of reporting operations, replacing error-prone quarterly manual processes with production-grade daily pipelines that reduced data inconsistencies by 95% and improved stakeholder trust.
- ❖ Established company's first dedicated data engineering organization from ground up—recruiting 15+ engineers, while building data platform that reduced time-to-insight by 70% and became critical infrastructure for product decisions.
- ❖ Stewarded $1.25M engineering budget, reallocating 60% from legacy systems to AI/ML capabilities while reducing overall infrastructure costs by 35% through strategic use of FOSS and architecture modernization.

- ❖ Partnered with Product to define technical roadmap, translating business requirements into architecture decisions and sprint planning, balancing feature velocity with technical debt reduction at 80/20 ratio.

- ● **Engineering Manager | 2020-2022**
  - ❖ Led team of 9 engineers to rebuild legacy rates & ratings system, migrating from monolithic architecture to event-driven microservices (Kafka, Node.js, AngularJS) that improved data processing throughput 10x while reducing infrastructure costs by $100K annually.
  - ❖ Established CI/CD pipeline with automated testing, security scanning, and zero-downtime deployments that reduced deployment time from 4 hours to 20 minutes.
  - ❖ Created real-time infrastructure health monitoring system tracking downtime and business impact, enabling proactive interventions that improved uptime to 99.95%.

💼 Enterprise Architect / Tata Consultancy Services

2019 – 2020

- ❖ Partnered with C-suite and led enterprise-wide digital transformation roadmap spanning 3 years and 40+ applications, orchestrating migration from on-premises legacy systems to cloud-native architecture while maintaining business continuity and supporting revenue growth.
- ❖ Led proof-of-concept initiatives for emerging technologies (containers, serverless, AI automation), de-risking adoption decisions and establishing enterprise patterns that accelerated team productivity by 25%.
- ❖ Architected $15M tech stack modernization program across 4 years, replacing monolithic ERP with composable SaaS solutions and cloud platform that reduced total cost of ownership by 40% while improving business agility.

💼 Engineering Manager / Gracenote Inc.

2017 – 2019

- ❖ Delivered real-time sports event capture platform processing live video streams to detect and log in-game events (goals, penalties, key plays) with 90% accuracy, automating the manual tagging that previously required 25+ FTE.
- ❖ Architected multi-sport data normalization engine standardizing statistics across football, basketball, baseball, and soccer into unified schema, enabling cross-sport analytics and reducing integration effort for new sports by 60%.
- ❖ Developed high-performing engineering culture through bi-weekly 1:1s, quarterly career development planning, and technical mentorship that resulted in 3 internal promotions and 2 engineers transitioning to tech lead roles within 18 months.

💼 Principal Consultant / NTT Data Inc.

2012 – 2017

- ❖ Led technical direction for 5-person development team, establishing coding standards, architecture patterns, and technology choices that improved code quality scores by 35% and reduced code review cycles from 3+ days to 8 hours.

- ❖ Optimized high-traffic employee benefits application handling 2M+ daily transactions, implementing database query optimization, connection pooling, and caching (Redis) that improved throughput 20% (5K to 6K visits/minute).
- ❖ Designed RESTful API platform with 50+ endpoints serving web, mobile, and partner integrations, implementing Open API specifications, versioning strategy, and API gateway that handled 10M+ requests daily.

💼 Technology Lead & Project Manager / Infosys

2005 – 2012

At Infosys, I played various roles including Senior Software Developer, Programmer Analyst and Project Manager. Besides working with various Fortune 500 clients, I sharpened my skills across technology as well as people management. My various roles involved:

- ❖ Led teams of architects and business analysts in gathering and analyzing requirements and defining technical solutions.
- ❖ Participated in RFP process and estimations
- ❖ Managed resources and project execution risk to ensure projects meet schedule commitments
- ❖ Planned, executed, and delivered solution on time, within budget, and in accordance to specifications
- ❖ Tracked milestones from project initiation to completion
- ❖ Provided architectural recommendations to streamline business processes
- ❖ Created architectural blueprints, proof of concepts, road map, implementation plan and other documentation

💼 Software Developer / Various Organizations, India

2002 – 2005

As a Software Engineer, I got to work on unique products such as POS terminal application for a leading restaurant chain requiring data replication across data centers and inventory solution for stockist of heavy machinery.

- ❖ Contributed to the architecture and design of an enterprise CRM platform used by 100+ active clients.
- ❖ Actively participated in system design reviews and contributed to codebase improvements and refactoring.
- ❖ Improved user interface to improve engagement by 40%

Education

2021-2022

Astrophysics / Saint Mary's University, Canada

I have long been intrigued by the cosmos and the work of some of the towering people in this field e.g. Annie Jump Cannon, Henrietta Swan Leavitt & Cecilia Payne-Gaposchkin has been a constant motivation for me to study the mechanics of the heavens. In 2021 I decided to formally study the subject starting with some of the undergraduate courses and hopefully getting my master's down the line.

APRIL 2010
PG Diploma in Business Administration / ICFAI, India

This course helped me understand the challenges of modern businesses and provided me the tools to understand and overcome some of the most common problems in software industry.

APRIL 2002
PG Diploma in Software Engineering / MISEM, India

A successful IT leader needs to be technically savvy while being a good people's manager. MISEM helped me hone my skills in these areas with their focused curriculum targeted at the rapidly growing Indian IT sector.

APRIL 2001
Bachelor of Engineering (Civil) / Nagpur University, India

Engineers solve problems and no other institution could better prepare me for the challenges I would face over the years than my alma mater. I ranked 7th overall in the Civil engineering faculty amongst hundreds of students completing their course from the university that year.

Professional Certifications

2019/2022
Amazon Certified Cloud Practitioner / Amazon Web Services

2015/2018
Certified Scrum Master / Scrum Alliance

2013
Oracle Certified Java Programmer / Oracle Inc.

Technology Stack

- AWS (Lambda, Glue, Athena, EKS etc.)
- Apache Kafka, Flink, Spark, dbt
- Java, Spring, Python, NodeJS, AngularJS
- Terraform, Vault, Vagrant, Docker, Kubernetes
- Prometheus, Grafana, SonarQube
- Iceberg, Delta Lake, Snowflake, Redshift
- MySQL, Postgres, Redis, MongoDB, Neo4J, Elasticsearch, DynamoDB
- Jira, Miro