DINESH MAKHIJA

Technology Leader | Engineering Organization Development & Platform Scale
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PROFESSIONAL SUMMARY

Strategic, results-driven Technology Executive with experience building and scaling high-volume engineering platforms serving millions of users across healthcare, connected devices, and network security. Proven expertise in directing large-scale architectural transformations, operationalizing autonomous AI agent frameworks in regulated environments, and executing multi-year technical roadmaps aligned with corporate strategy. Adept at developing high-performing engineering organizations with rigorous operational discipline, establishing strong talent management frameworks, and championing advanced AI adoption to optimize the modern software development life cycle.

PROFESSIONAL EXPERIENCE

Senior Engineering Manager | Blink Health Jun 2019 - Apr 2026 | Westford, MA

- **Platform Strategy & Governance:** Steering platform evolution across the cloud pharmacy fulfillment ecosystem, patient purchase experiences, and customer engagement. Led trade-off decisions balancing feature velocity with technical excellence to drive large-scale architectural transformation and strategic technical debt reduction.
- **Engineering Organization Development & Leadership:** Developed engineering organization into high-performing teams with strict operational discipline; partnered with talent teams to establish rigorous hiring bars and documented interview guidelines for ICs, managers, and tech leads. Developed and promoted 3+ engineers into leadership roles, expanding internal capacity to own delivery, quality, and reliability independently.
- **Architectural Leadership & Scale:** Directed platform evolution enabling 70x volume growth; steered the migration from a monolithic legacy system to event-driven microservices on native AWS. Introduced robust workflow orchestration layers and replaced third-party dependencies with highly efficient, owned enterprise integrations while embedding comprehensive platform observability across latency, TPS, CPU, and memory metrics.
- **AI-Driven SDLC Optimization:** Championed the strategic adoption of AI capabilities across the Software Development Life Cycle (SDLC) to accelerate velocity beyond basic code generation. Integrated AI-driven test frameworks to enhance code coverage, automated proactive risk assessments prior to production deployments, and leveraged intelligent anomaly detection to drastically reduce the time to resolution for high-severity root-cause analysis (RCA), improving overall lifecycle efficiency by over 20%.
- **AI Operationalization & Governance:** Operationalized autonomous AI agent frameworks in regulated pharmacy operations. Conducted deep root-cause analysis of complex ecosystem dependencies to deploy strict AI governance, compliance guardrails, and human-in-the-loop validation gates. Successfully implemented production use cases for claim error interpretation, retry reduction, and dynamic SOP generation with PHI-compliant automated redaction.
- **Product Outcomes & Ecosystem Integration:** Partnered closely with product and design to deliver flagship, touchless prescription processing (40% new scripts, 70% auto-refills), reducing benefits discovery from 4+ hours to under 30 minutes and cutting operational costs per script by 50%+. Engineered a direct integration layer across critical healthcare partners (Surescripts, CoverMyMeds, Eagle Force, Switch Networks, LexisNexis) to accelerate enterprise health plan partner onboarding and ensure scalability.

Software Development Manager (L6) | Amazon Lab126 May 2017 - Mar 2019 | Cambridge, MA

- **Common Speech Middleware Strategy:** Led the development and architectural strategy of Common Speech Middleware for Alexa, a critical orchestration layer enabling consistent voice and multi-modal experiences serving a fleet of 10M+ active devices across Echo, Fire TV, Fire Cube, and Fire Tablet product families.
- **Cross-Functional Alignment:** Partnered closely with Alexa executive leadership and hardware engineering teams to balance cross-device feature velocity with architectural compatibility across diverse form factors and fluid interaction models.
- **Operational Excellence & Scale:** Managed and mentored a high-performing team of 8-12 software engineers, driving exceptional operational standards and technical execution to sustain performance across the massive device fleet.

- **Platform Extensibility:** Led the architectural extensibility design for Alexa Local Voice Control, decoupling device functionality from cloud dependencies to securely enable critical, ultra-low-latency offline features across device profiles with distinct resource constraints.

Senior Director, Engineering | Corero Network Security Apr 2012 - May 2017 | Marlborough, MA

- **Product Innovation:** Led the end-to-end concept-to-production development of Corero's flagship "First Line of Defense" DDoS defense platform, successfully taking it from concept to market deployment in under 12 months with a team of 12-15 engineers.
- **Market & Architecture Scale:** Accelerated business growth, driving a 3x to 5x expansion of the active deployed customer base over 2 years; pioneered the robust platform architecture that continues to serve as Corero's core commercial product.
- **Agile Transformation:** Drove organization-wide Agile methodology transformation and complex technical architecture consolidation, significantly increasing delivery velocity while smoothly managing concurrent development pipelines across new product releases and legacy intrusion detection systems.

Engineering Manager | Arbor Networks (Ellacoya Networks) Jul 2006 - Mar 2012 | Merrimack, NH

- **Global Delivery Scale:** Managed distributed engineering cross-functional teams spanning the US and India to deliver the comprehensive provisioning, reporting, and management plane for the Ellacoya Deep Packet Inspection (DPI) platform, achieving carrier-grade application detection at a 20 Gbps line rate for global Tier 1 service providers.
- **Security Research & Academic Collaboration:** Founded and built the specialized Application Signature Research group, scaling the network threat database from under 100 entries to more than 1,000 signature patterns. Collaborated with faculty from U-Mass Amherst to develop advanced detection algorithms for identifying Peer-to-Peer (P2P) traffic employing complex protocol obfuscation techniques.
- **Signature Automation Engineering & IP:** Architected and built an automated signature validation laboratory, effectively shrinking verification and validation cycles from several days down to a few hours. Awarded a US Patent for inventing advanced heuristics-based network traffic detection algorithms.

Manager / Tech Lead | Alcatel-Lucent (WaterCove Networks) Oct 2000 - Jun 2006 | Chelmsford, MA

Architected and developed the platform foundations that became the first intelligent, high-availability GGSN commercially deployed worldwide. Designed a highly scalable core architecture that reliably supported session setup rates 5x the industry standard, establishing a critical product differentiator that won the Orange UK enterprise account and directly contributed to the company's acquisition by Alcatel.

Tech Lead / Principal Engineer | Lucent Technologies & Newbridge Networks

Mar 1995 - Sep 2000 | Westford & Andover, MA

Served as Technical Lead overseeing LAN Emulation, BGP-4 routing protocol integration, and high-capacity ATM switching frameworks at carrier scale. Performed foundational embedded systems engineering and networking protocol development utilizing C/C++ on the VxWorks Real-Time Operating System (RTOS).

EDUCATION & CREDENTIALS

Wharton Executive Leadership Program in AI & Analytics | University of Pennsylvania Sep 2025 - Apr 2026
Capstone: AI-Native Platform Strategy and Org Transformation Framework

Bachelor of Engineering – Electronics and Communication Engineering 1981 - 1985
Delhi College of Engineering (Delhi Technological University), India

PATENTS

US Patent (Arbor Networks): *Method and System for Monitoring Flows in Network Traffic.*
A heuristics-based algorithm engineered to capture and classify application signatures at carrier line rates.