

NIKHIL SINGHAL

CTO | VP ENGINEERING | AI PRACTITIONER & GOVERNANCE STRATEGIST

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SUMMARY

- **Builder who governs:** For the past year, AI has been my full development partner. The first product took nine months. The most recent took a day. The tools did not change. The understanding did. Production architectures designed for two intelligences working together. ResyncLife, the flagship, lives in all four patterns simultaneously: the center of the bloom.
- **The Intent Layer:** The building revealed the Intent Layer: the structural gap between what the human means and what the machine does. That insight now shapes how governments approach AI governance, including public comments to NIST on AI agent security. Founded AI Trust Commons (aitrustcommons.org).
- **The Framework:** Published the Human Intelligence Partnership Charter (hipcharter.com): four partnership patterns for human-AI systems. Fifteen positions on the map.
- **Technology executive** with dual CTO and Head of Product experience. Led engineering and product organizations from 5 to 200 people across PE-backed startups and Fortune 500 companies including Expedia, T-Mobile, Microsoft, AT&T.
- **Product vision and strategy:** Technology strategy that delivers measurable customer value. Customer-driven approach - every technical decision starts with user impact; every roadmap prioritizes outcomes over features.
- **Proven outcomes:** \$45M annual savings (Expedia VRBO integration), 400% operational efficiency (Tour Guy AI platform), 300% ARR growth from \$1M to \$4M (Imperative).
- **Deep technical foundation:** Cloud architecture (AWS, Azure, GCP), microservices, AI/ML integration, enterprise and API platforms. Background across fintech, telecom, travel/hospitality, B2B SaaS, e-commerce, IoT, green energy.
- **Leadership philosophy:** Hire smart people, remove obstacles, enable high quality delivery. Leads with transparency, curiosity, and empowerment. 114 LinkedIn recommendations from peers, reports, and executives speak to impact.

WHAT OTHERS SAY

"Nikhil's superpower was his partnership with sales - he built trust and was always quick to jump on any customer need. He was key to growth of our accounts." - Aaron Hurst, CEO, Imperative (LinkedIn Top Voice, Founder of Taproot)

"His teams appreciated his focus on delivery over status meetings and finding the right projects for his strong performers to work on that would challenge them. Not surprisingly, his teams really liked working with him." - Andrew Verprauskus, VP Technology, Expedia Group

"One of the best managers I've ever had in my thirteen-year career. He has solid technical knowledge, both broad and deep, and isn't afraid to roll up his sleeves to help when needed." - Wes Greene, Team Builder & Technology Leader

PROFESSIONAL EXPERIENCE

FOUNDER | AI Trust Commons | Mar 2025 – Present

Governance & Standards:

- Published the *Human Intelligence Partnership Charter*: four partnership patterns for human-AI systems, fifteen positions on the map. Published on hipcharter.com, Medium, and Zenodo (DOI: 10.5281/zenodo.19078843).
- Published "*From Instinct to Intent™*" series: four articles on the structural gap between human intent and machine execution. Published on aitrustcommons.org, Medium, and Zenodo. USPTO trademark filed (Serial 99690685, 3 classes).
- Submitted ~5,000-word *public comment to NIST CAISI docket* (NIST-2025-0035) on AI agent security. Three arguments: organizational governance is already broken and agents make it worse; NIST should drive convergence

across existing standards; compliance must become machine-readable. Grounded in deploying compliance across 8 organizations and 7 industries.

- *Book in progress*: memoir-meets-manifesto on the journey from instinct to intent in human-AI interaction.

Products Shipped (across all four HIP Charter partnership patterns):

- **ResyncLife** (resynclife.com) — Personal command center that treats your whole life as one life. Voice capture with NL parsing, calendar sync (EventKit, ICS, OAuth), family circles, goal tracking. FastAPI + SwiftUI iOS + sync engine. The only product in the portfolio that lives in all four HIP Charter patterns simultaneously. Full stack shipped in a day, after a year of learning across every other product. *The center of the bloom*.
- **Recurate** (recurate.ai) — Suite of five extensions for the complete AI interaction lifecycle. Composer formats input. Annotator curates output (highlight, strikethrough, dig deeper, verify). Copier captures conversations as clean markdown or styled HTML across 7 platforms. Connect coordinates between parallel AI chats with one-click context sharing. Platform compares responses across Claude, GPT, Gemini, and Grok side by side. Chrome Web Store + VS Code. *Tooling and Integration patterns*.
- **ScreenTrades** (screentrades.ai). AI-powered trading analysis. 1,882 commits over 10 months, the origin project where the AI partnership started. Aggregates 20+ real-time data APIs, delivers analysis with confidence scores, entry/exit points, transparent reasoning. V2.0 web + iOS V2 shipped. React, FastAPI, Claude AI.
- **TourGraph** (tourgraph.ai). Tour discovery across 136K+ experiences in 3,380 destinations. v10.0.0: standalone Express 5 + TypeScript backend API, Next.js web, SwiftUI iOS with MapKit globe + 2,694 destination pins.
- **GitaVani** (gitavani.app). Bhagavad Gita reader. 701 verses, 17 scholars, Sanskrit audio, 4 themes. iOS (App Store) + Android. Swift/SwiftUI, zero external dependencies, fully offline.
- **ClearNews** (getclearnews.com). News aggregator. 41 sources, 13 categories, no ads. iOS (App Store) + Android + Web + API. Next.js, SwiftUI, FastAPI.
- **CoPilots Launchpad** (github.com/nikhilsi/copilots-launchpad). Electron desktop app for M365 test account management. Playwright auto-login, encrypted credentials via OS keychain. Azure Trusted Signing for Windows. macOS + Windows. MIT license.

ENGINEERING LEAD (CONTRACT) | T-Mobile | Feb 2025 – Jan 2026

Led integration of Metro by T-Mobile into the T-Life mobile app - a major platform consolidation initiative.

- Built and led 40-person engineering team across mobile, backend, and QA
- Drove architecture decisions and coordinated cross-functionally with product, design, and business stakeholders

TECHNICAL ADVISOR | Self-employed | Oct 2023 – Feb 2025

Advised early-stage startups (Seed to Series A) on technical strategy, cloud architecture, and product roadmap.

Engagements included due diligence for investors, architecture reviews, and CTO coaching.

CHIEF TECHNOLOGY OFFICER | The Tour Guy / The Roman Guy | Mar 2023 – Oct 2023

Architected the company's technology strategy and engineering for AI-driven product transformation - advanced e-commerce, personalization, and operational efficiency across web and mobile.

- Built the **Personalization® travel platform** and AI-powered **travel planning assistant** - NLP, ML models, real-time weather and events integration driving tour selection, customized itineraries, and revenue growth
- Enhanced platform with **predictive recommendations** and **dynamic tour group matching** - analyzed customer data, sentiment, and travel trends to surface hidden destinations and pair travelers with compatible groups
- **Improved operational efficiency by 400%** through AI-based dynamic pricing (real-time demand, competitor pricing, availability, weather) and fraud detection systems integrated with payment processors

CHIEF TECHNOLOGY OFFICER & HEAD OF PRODUCT | Imperative Group | Mar 2020 – Mar 2022

Led Product and Engineering for enterprise peer coaching SaaS – converted a proof-of-concept to an enterprise product.

- **Grew ARR 300% from \$1M to \$4M** - scaled platform to 20+ enterprise customers including Microsoft and Hasbro, thousands of active users
- **Architected ML/AI coaching platform** combining behavioral science, network analysis, and data analytics - **improved scalability by 400%**, supporting 4x user growth without additional infrastructure
- **Tripled engineering and product team size** - built first in-house team, transitioned from external vendors, defined product strategy and roadmap, delivered board updates that secured continued Series funding
- Architected data infrastructure and drove SOC II compliance for enterprise security requirements

SENIOR DIRECTOR OF TECHNOLOGY (INTERIM) | Expedia Group | Sep 2018 – Mar 2020

Led Lodging Platform Integration and Experience group - B2B SaaS platform connecting Expedia with lodging suppliers.

- Led **VRBO systems integration** into Expedia Lodging - one of the largest platform consolidations in the group leading to an annual savings of over **\$45MM**
- Scaled 3rd-party supplier network from **28 to 75** via API platform and dev Portal - **300% increase** in real-time inventory, expanding Expedia's lodging catalog
- Reduced supplier onboarding from **180 days to 35 days** - accelerated partner acquisition, lodging inventory, improved supplier satisfaction and customer experience

DIRECTOR OF DIGITAL TRANSFORMATION | Hitachi Consulting | Jan 2014 – Jun 2018

Led Cloud Transformation, Agile, and DevOps practice. 200+ engineers across multiple Fortune 500 engagements. Drove **\$100M+ in delivery revenue, \$200M in digital product sales.**

- **Microsoft:** Led 80+ person team delivering OEM Platform tools; led 20+ person team building multi-billion-dollar retail planning system
- **NWEA:** Director of Software Engineering (150+ team) building scalable education testing platform; also led Product Management defining next-gen roadmap
- **Additional engagements:** Toyota Financial Services (60+ team, agile transformation), Rabobank NA (50+ team, regulatory reporting), Trupanion (30+ team, claims processing)

PLATFORM ARCHITECT | AT&T | Feb 2013 – Jan 2014

Architected **AT&T's developer API platform** for scale - geo-redundancy, security, and cloud performance. Drove platform adoption and growth across external developer ecosystem.

DIRECTOR OF ENGINEERING | GridPoint Inc. | Sep 2012 – Feb 2013

Led 60+ person agile team building **energy management SaaS platform** - IoT system with real-time data storage, analysis, and reporting. Scaled to **100M+ messages per hour.**

CTO | Zaprica Inc. | Nov 2011 – Jul 2012

Architected **end-to-end content collaboration platform** - cloud backend, API layer, web and mobile front-ends.

VICE PRESIDENT, ENGINEERING | Groundspeak | Dec 2008 – Nov 2011

Led all engineering for geocaching.com - location-based platform with **5M+ users worldwide.** Owned architecture and execution for all software products, backend infrastructure, and internal tools.

- Built engineering team from ground up to **50+** - established culture of ownership, innovation, and empowerment. Direct reports went on to senior leadership (current Head of Engineering was on this team)
- Launched **mobile apps (iOS/Android) and public API** - extended platform to global developer community, drove **30% year-over-year revenue growth** through technology vision aligned with business strategy
- Bridged engineering and marketing - praised by COO for eliminating cross-functional communication gaps

SOFTWARE ARCHITECT | OpenText (Captaris) | Nov 2007 – Dec 2008

Architected enterprise imaging, faxing, and workflow solutions. **Retained million-dollar accounts** by leading Project Confidence - a turnaround initiative delivering critical platform stability.

PRINCIPAL DEVELOPMENT MANAGER | Telspace | Apr 2007 – Nov 2007

Built Mobile Platform web services for **MVNO/MVNE telecom operations**. Won multiple new contracts by delivering carrier-grade APIs and integration solutions.

DEVELOPMENT LEAD | Microsoft | May 2003 – Apr 2007

Led engineering initiatives across Windows Live, Global Foundation Services, and Commerce Server - building high-scale applications serving millions of users. Awarded **Microsoft Gold Star** for exceptional performance.

- **Windows Live Spaces:** Drove 7 releases championing agile development. Increased Live Search share by **30 million ad queries per day**
- **Global Foundation Services:** Led agile team of FTEs and vendors building high-scale infrastructure for Windows Live
- **Commerce Server:** Built automation tools and reporting frameworks for business intelligence initiative

EARLY CAREER | 1996 – 2003

Divine Inc. (Senior Software Engineer) - led global teams (US, India, Japan) building Transact e-commerce platform.

Digital Equipment Corp. (Team Leader) - led distributed teams developing Apple Mac e-mail client. **VeriFone** (Software Engineer) - built payment terminal communication protocols.

TECHNICAL EXPERTISE - *What I build with, how I build it, and what I've secured along the way*

AI/ML: Claude AI, Claude Code, GPT, Gemini, Grok, LLM integration, NLP, predictive analytics, multi-model orchestration

Languages & Frameworks: Python, TypeScript, React, Next.js, Node.js, FastAPI, Express, SwiftUI, Electron, .NET, Java

Cloud & Infrastructure: AWS, Azure, GCP - certified AWS Solutions Architect, Developer, SysOps Administrator

Architecture: Microservices, Kubernetes, Docker, SOA, API design, enterprise integration patterns

Data: PostgreSQL, SQL Server, MongoDB, Cassandra, Hadoop, real-time analytics

Mobile: iOS (SwiftUI), Android, React Native

Compliance: SOC 2, PCI DSS, HIPAA, COPPA, FERPA, FCC, ITAR/EAR

EDUCATION

Harvard University - Graduate Studies, Distributed Computing and UNIX System Programming

Bangalore University, India - B.S., Computer Science & Engineering (Top 1% of class)

HONORS AND CERTIFICATIONS

Patents: Protecting Non-Adult Privacy in Content Page Search · Metadata for Searching Within First Degree Contacts · Collaborative Content Publishing

Certifications: Certified SCRUM Professional, SCRUM Master, SCRUM Product Owner · Kanban and Lean Development

Awards: Microsoft Gold Star · Microsoft Above & Beyond · Expedia Leadership Academy Coach & Innovation Mentor

Publications:

- From Instinct to Intent™ series: Article 1: Discovering Intent (DOI: 10.5281/zenodo.18917473)
- Article 2: Languages Designed for Humans (DOI: 10.5281/zenodo.19005877)
- NIST CAISI public comment (NIST-2025-0035)