

Manas Nikam

Forward Deployed Engineer | Solutions Architect | AI Agents and Enterprise Integrations

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Summary

Forward Deployed Engineer with 8+ years of production engineering, including 3+ years customer-facing as contract Systems Architect embedded with a Canadian tour operator, shipping supplier, CRM, and payment integrations end-to-end into its booking platform and cutting per-product booking time from 10 minutes to 30 seconds. LLM work: Gemini invoice OCR on Vertex AI with per-invoice cost tracking for a paying client, plus four hackathon AI agents, two over vendor MCP servers, and an evaluation harness with confidence intervals. Integrated 30+ fintech providers, Salesforce, and Azure AD SSO; turns ambiguous executive asks into specs.

Skills

AI and Agents: LLM (large language model) and AI agent applications, multi-agent systems (Google ADK, CrewAI), MCP (Model Context Protocol) tool integration, prompt engineering, RAG (retrieval-augmented generation), vector databases (Qdrant), evaluation harnesses, guardrails (Model Armor), Gemini on Vertex AI, Anthropic Claude API, Claude Code

Languages: Python, TypeScript, JavaScript, Java, SQL, Rust

Integrations: REST APIs, GraphQL, webhooks, OAuth 2.0, SSO (Azure AD), Salesforce, Flywire, Postmark, Jira, travel supplier APIs (JonView, VIA Rail), 30+ payment providers (AePS, DMT, micro-ATM), device SDKs

Frameworks: Django, Django REST Framework, FastAPI, Spring Boot, React, Next.js, React Native, Node.js

Cloud and Infrastructure: AWS (Lambda, ECS, S3, DynamoDB, EventBridge), Google Cloud (Cloud Run, Vertex AI, Firebase, Firestore), Cloudflare Workers (D1, Queues, Durable Objects), Docker, CI/CD, GitHub Actions

Data: PostgreSQL, MySQL, Elasticsearch, Redis, Firestore, DynamoDB

Practices: end-to-end delivery, customer discovery and scoping, stakeholder communication (CEO, Director, Product Owner), system design specs, observability (OpenTelemetry, Grafana), reliability patterns (circuit breakers, retries, failover), least-privilege security

Experience

Systems Architect

May 2023 - Present

Fresh Tracks Canada (contract), Vancouver, Canada (remote)

- Integrated the JonView supplier API into the customer's Itinerary Management System so staff search and book products in-system; cut per-product booking time from about 10 minutes to about 30 seconds and handled supplier timeouts, downtime, and IMS-to-JonView state sync edge cases.
- Built the VIA Rail supplier integration end-to-end in under eight weeks (Jul to Sep 2026), from API client to graceful failure handling, as dominant author of the supplier-connect service (124 of 330 commits).
- Owned production database observability: designed, built, and documented solo (30 of 30 commits) a Postgres fleet monitor on AWS Lambda and DynamoDB with 11 metrics, alert thresholds, and a least-privilege DB role; adding a server is a secret edit, not a deploy.
- Translated the Product Owner's requirements into redesigned booking logic, then led the Ruby on Rails to Django and React migration; cut API response times 80 to 95% by reducing SQL calls and caching static data.
- Advised the Director on technology and business alignment; architected and built the full-stack Product and Itinerary Management Systems that replaced a legacy booking system (394 of 2,073 PMS commits).
- Shipped integrations with Salesforce (OAuth connected app, PDFs to Cases), Flywire payment portals, Azure AD SSO, and Postmark; set up CI/CD on GitHub Actions with SonarQube gates and Django unit and end-to-end tests.

Founder and Consulting Engineer

2023 - Present

Prescale Systems, Mumbai, India (independent consultancy, alongside contract work)

- Shipped, as sole author (111 commits), a production platform for CD Infoware, an Indian equipment-services client, live at cd-infoware.web.app: Gemini on Vertex AI invoice OCR with JSON-schema extraction, capped at 10 instances so bulk uploads cannot run up paid model calls, with per-invoice cost logged in USD and INR.
- Automated the client's monthly meter-to-bill workflow: daily Puppeteer scrape of Konica Minolta's CS Remote Care portal (about 60 counters per device), diffed into Tally-format draft GST invoices in its numbering sequence.
- Built a municipal government deployment for Thane Municipal Corporation from an approved feasibility study (Aug 2026) to an MVP with about 10 real accounts and QR ticket reporting (cdinfoware-tmc.web.app).
- Shipped ConstructNet v2 (11 screens) into ConstructConnect's gc-v3-frontend Next.js repo behind a LaunchDarkly flag (paid US engagement); added UCMS submit retry with backoff, triaged Jira with the client's team, and built an image-RAG spike.

- Designed a Go fleet-telematics system, reviewed it, then discarded it for a Rust design sized for 500 to 50,000 vehicles; carried all 34 fixture packets and review findings forward so the reversal lost no test coverage.
- Wrote a signed Digital Growth Proposal for a UK client: 4 workstreams, 6-month plan, ROI projection.

Solutions Architect

Nov 2020 - Mar 2023

mBnk Phygital Financial Marketplace Pvt Ltd, Mumbai, India

- Led a 5-person engineering team and reported directly to the CEO at a fintech startup; built and ran the Micronaut, Django, and React platform at scale on GCP Cloud Run and Firestore (10,000+ users, 20,000+ transactions per day).
- Designed the integrations module connecting the marketplace to 30+ payment providers (AePS, DMT, micro-ATM) through common middleware and a unified data architecture.
- Codified provider onboarding into a Unified Marketplace Architecture (one standard interface per service type); cut per-service effort about 90%; provider adoption takes about 15 lines of integration code.
- Built an SDK for real-time device communication with micro-ATM and AePS biometric devices, cutting transaction time by 2 to 5 seconds, plus an error-handling framework for functional and technical failures.
- Automated reconciliation with real-time Firestore dashboards that resolve every pending transaction to reversal or success, and wallet auto-replenishment through payout APIs that notifies business teams and providers.

Software Engineer

Apr 2019 - Nov 2020

Societe Generale Global Solution Centre, Bangalore, India

- Led the migration of 5 of 10 legacy Struts and JSP applications to Spring Boot and Angular in 10 months against an 18-month plan, with a single-bundle deployment pipeline.
- Migrated authentication from session-based (Sesame) to token-based OAuth (SG Connect).
- Built features for the payments team, fixed security vulnerabilities flagged by internal scanners, and delivered serverless PoCs on the bank's internal cloud supporting a CapEx-to-OpEx shift.

Software Engineer

Jan 2018 - Mar 2019

Zenex eCommerce Private Limited, Mumbai, India

- Built a payment gateway in Django and PostgreSQL on AWS EC2 and S3, integrating AGS and RBL Bank for card and net-banking payments, with per-customer digital wallets.
- Built processor failover that picks the payment processor by failure rate and timeout, and integrated the Telpo TPS900 POS device with fingerprint authentication for Aadhaar-to-Aadhaar transfers.

Projects

AgentReady, WebMCP readiness benchmark (The WebMCP Challenge hackathon, Devpost) Sep 2026

agentready.prescaletsystems.workers.dev | github.com/manasnikam/agentready

- Built and submitted an LLM audit runner scoring websites 0 to 100 on agent task completion via raw UI versus WebMCP tools: N runs per site, 95% confidence intervals, and an 8-category failure taxonomy.
- Shipped 13 WebMCP tools and a serverless audit pipeline on Cloudflare (Queues, Browser Run headless Chrome, Workers AI Llama 3.3 70B agent, D1) with a daily run budget and payload caps.

Agentic Cinema (hackathon): 3 agents in 3 days, 2 over vendor MCP servers Sep 2026

youtu.be/5iJNkMvjNho (demo video) | github.com/PreScale-Systems/shot-deadline

- Built and submitted three Google ADK agents on Gemini 2.5, 2 over vendor MCP servers (ClickHouse, Grafana), each live on Cloud Run with SSE tool-call streaming: Clearance Desk (5-stage pipeline, Parallel Search API called directly), Retention Room (mcp-clickhouse), and Shot Deadline (mcp-grafana, writing incidents back to Grafana).
- Fixed run-to-run drift by templating search queries per category, restoring stable revision diffing.

Proofline, ISO 27001 and SOC 2 evidence agents (All Things Agentic hackathon) Aug 2026

allthingsagenticshackathon.devpost.com

- Built and submitted a governed agent fleet on the Gemini Enterprise Agent Platform with Nilakshi Deolekar as domain lead: 4 read-only collectors, a Verifier that re-fetches each source and compares SHA-256 so hallucinated evidence is rejected, Model Armor guardrails, and a human-in-the-loop auditor workspace.

Published packages, @prescale-systems React Native modules (MIT license) 2026

- Published react-native-fused-geolocation v0.1.7, a production-grade Android background-location module with 109 Robolectric and 16 Jest tests, dogfooded in the CD Infoware app, and react-native-fused-call v0.1.5, to GitHub Packages under the Prescale Systems org (source available on request).

VoiceAgentRAG, omnichannel voice AI platform (personal, designed and prototyped) Mar 2026

- Designed and prototyped 6 Cloudflare Workers (voice gateway, RAG engine, vector store, LLM router, ingestion, dashboard) with pluggable telephony, vector, and LLM providers and a Durable Object semantic cache (design targets, not measured).

Education

B.E. Electronics Engineering, Mumbai University, Jun 2013 - May 2017