Dipankar Banik

Technical Lead | AI Agent Platforms and Distributed Systems | Python, Java

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SUMMARY

Technical lead with 20+ years in production distributed systems, now applied to LLM-powered agents: agent harnesses, context engineering, evaluation, and governance. Ships agent workflows to production with MCP tools, RAG, and guardrails around the model and a policy engine making the final, auditable decision. Builds platform capabilities other teams depend on, sets engineering standards, and leads teams of six to ten across the US and India.

APPLIED AI AND AGENT PLATFORM WORK

IN PRODUCTION AT NARVAR

- **Fraud prevention agents:** LLM-powered agentic workflows for returns fraud prevention: multi-step LLM workflows (MCP tool calling, RAG, vector search) gather and summarize the signals; a Drools policy engine makes the final, auditable decision.
- **CDP governance:** rule-guarded AI workflows for the Customer Data Platform (CDP) with policy checks around LLM outputs; team standards for AI-assisted development (AGENTS.md conventions, review checklist).

INDEPENDENT PROJECTS, 2025 - 2026 (PYTHON, END TO END)

- **Agent orchestration:** multi-agent systems on LangGraph and LangChain and with agent SDKs: task delegation across agents, human-in-the-loop approval steps, and tools exposed through MCP.
- **LLM infrastructure:** FastAPI services (asyncio, Pydantic) routing across OpenAI and Anthropic models with response caching and token and cost tracking; agent output streamed to a React interface.
- **Context engineering:** RAG over a vector database with embeddings, with retrieval tuned against an evaluation dataset.
- **Evaluation and safety:** LLM-as-judge scoring, regression tests in CI, and LLM tracing with OpenTelemetry; guardrails for prompt injection plus PII detection and redaction.

EXPERIENCE

Senior Backend and Platform Engineer | Narvar Inc., San Francisco, CA — Mar 2016 - Present

- **Fraud prevention:** built the returns fraud prevention platform: Drools policy engine with a custom ANTLR DSL (38 AWS Lambdas) so risk and business teams change policy without a release; LLM agents gather the signals, the engine decides.
- **Customer Data Platform:** backend and data governance for the CDP: Python tooling for pipeline and schema governance (Avro, Protobuf) feeding a 494-table BigQuery warehouse; rule-guarded AI workflows with policy checks on LLM outputs.
- **Distributed systems:** own the backend of a multi-tenant Returns SaaS used by hundreds of retail brands: Java 21 / Spring Boot 3 on GCP Kubernetes; Apache Pulsar carrier-event pipeline with dead-letter queues and reconciliation.
- **Security:** Google Tink PII encryption library adopted platform-wide (central to the log4j2 remediation); OAuth2/Okta, JWT, mTLS (Linkerd), HashiCorp Vault, ModSecurity WAF.
- **Run what I build:** structured logging, distributed tracing, Micrometer metrics, SLO alerts; on-call and incident analysis.
- **Delivery:** led the AWS-to-GCP migration; own infrastructure as code (Terraform, 79 Helm charts, ArgoCD, CircleCI).
- **Technical leadership:** set engineering standards for quality, security, and observability; lead architecture, design, and pull-request reviews; mentor engineers; partner with product and security teams; write design docs and ADRs.

Applications Engineer | Gilead Sciences, Foster City, CA — Sep 2014 - Mar 2016

- Led the migration of the FDA-validated Product Quality System from .NET to Java EE across four sites (Spring, Hibernate).

Portal Lead | Cisco, San Jose, CA — Aug 2010 - Aug 2014

- Technical lead for GTMS uCRM, the Cisco.com support portal integrated with Salesforce, and for portlets on the Liferay QUAD platform; designed the integration architecture and led offshore engineers.

Earlier Experience | Lead Portal Architect and Java EE Developer, NY, NJ, and CA — 2001 - 2010

- Portals and integration platforms for Kaiser Permanente, MLB, Marsh, Cravath, and John Deere; led teams of six to ten.

SKILLS

Languages: Python (FastAPI, asyncio, Pydantic), Java 21 (Spring Boot 3), Go, SQL, TypeScript
Agents and LLMs: LangGraph, LangChain, MCP, multi-agent orchestration, human-in-the-loop, OpenAI and Anthropic APIs, model routing, caching, cost control
Context, evaluation, safety: RAG, vector databases, embeddings, LLM-as-judge, regression tests in CI, guardrails, prompt-injection defense, PII redaction, OpenTelemetry
Platform: event-driven architecture, Apache Pulsar, Kafka, REST, gRPC, SSE, PostgreSQL, Redis, BigQuery, Docker, Kubernetes, Helm, Terraform, GCP, AWS
Security: OAuth 2.0, JWT, Okta, mTLS (Linkerd), HashiCorp Vault, Google Tink, ModSecurity WAF, policy engines (Drools)
Leadership: teams of six to ten across the US and India, mentoring, engineering standards, design and incident reviews

EDUCATION

B.S. in Physics, University of Pune, India