

VARSHA THONDALAPALLY

AI Product Engineer | Applied AI Engineer | Production AI Workflows

Austin, TX | Open to relocate to the San Francisco Bay Area and open to U.S. remote roles
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Summary

AI Product Engineer who delivered an initial working MVP in approximately five weeks and expanded it into a hosted AI-assisted workflow used in early paid pilots. Built applied-AI systems combining multimodal evidence, retrieval and reranking experiments, constrained candidate selection, structured outputs, exact authoritative validation, human review, durable revision-aware state, billing, integrations, and recovery.

Skills

Applied AI and LLM systems: OpenAI, Gemini, multimodal document/image/sketch/measurement workflows, structured LLM outputs, embeddings, retrieval and reranking, constrained candidate selection, deterministic validation, human-in-the-loop review, evidence-aware correction, AI workflow reliability

Backend and product systems: Python, FastAPI, schema-validated APIs, PostgreSQL, SQLAlchemy, Alembic, Redis-backed jobs, REST APIs, XML/file-exchange integrations, durable workflow state, revision history, Stripe billing and webhooks

Frontend, cloud, and enterprise: React, TypeScript, JavaScript, Java, Spring Boot, JSP, Angular, AWS ECS/Fargate, ECR, RDS, S3, CloudWatch, Docker, GitHub Actions, Kubernetes, CyberArk PAM, Active Directory

Experience

Roitech Corporation

Founding Engineer

Austin, TX (Remote)

Jun 2025 – Jun 2026

- As employee #1, built and operated a hosted AI-assisted restoration-estimating workflow that converted room-level photos, documents, sketches, measurements, notes, and business rules into structured, reviewable estimate state.
- Delivered an initial working MVP in approximately five weeks, then expanded it into a React, Python/FastAPI, and PostgreSQL product used in early paid pilots; owned model workflows, product decisions, full-stack implementation, AWS operations, billing, integrations, releases, and recovery behavior.
- Redesigned selection against a 14,211-row catalog after semantic retrieval and LLM reranking produced plausible near-match variants; constrained eligible candidates, required structured outputs, resolved exact authoritative records in application code, and routed ambiguity to human review.
- Modeled durable workflow state across clients, properties/jobs, rooms, sources, suggestions, revisions, approvals, billing, and delivery so long-running AI work could survive refreshes, restarts, edits, and asynchronous processing.
- Implemented revision history, review fingerprints, and stale-state invalidation so estimates edited after approval could not silently remain ready for downstream action.
- Built Stripe-backed subscriptions, trials, entitlements, usage/overage logic, and webhook reconciliation for early paid pilots, aligning usage with delivered claim behavior so retries did not automatically double-count allowance.
- Implemented and troubleshot external estimating-platform-facing workflows across readiness checks, authorization gates, XML/API/file exchange, transaction identity, asynchronous status, saved delivery history, reconciliation, and safe retries.
- Deployed and supported Dockerized services on AWS using ECS/Fargate, ECR, RDS, S3, CloudWatch, health checks, environment-aware configuration, and controlled releases; converted recurring operational edge cases into product controls, tests, and runbook practices.
- Roitech ceased operations in June 2026.

Roitech Corporation

Software Engineering Intern

Austin, TX (Remote)

Apr 2025 – May 2025

- Built early React, FastAPI, PostgreSQL, document/image ingestion, validation, and operator-review workflows during the product's earliest stage before promotion to Founding Engineer.

Skill Matrix Technologies / Floga Technologies

Software Engineer, Enterprise Workflow Systems

Texas (Remote)

Sep 2024 – Apr 2025

- Implemented role-based enterprise workflow and administration modules using Java, Spring Boot, JSP, REST APIs, AWS, and structured data operations.
- Contributed to deployment and troubleshooting workflows using GitHub Actions, Docker, ECR/ECS, Kubernetes, and monitoring tools.

PwC
Software Engineer, Privileged Access Management

India
Sep 2021 – Jan 2023

- Operated and troubleshot CyberArk PAM and Active Directory workflows across safes, users, groups, permissions, privileged/service-account onboarding, platform health checks, logs, runbooks, and audit evidence.
- Automated repeatable privileged-access and directory-administration tasks using PowerShell, REST APIs, and scripts, with secondary contributions to Spring Boot and React application work.

DXC Technology
Associate Software Engineer

India
Jan 2021 – Sep 2021

- Implemented secure enterprise application components across Java/Spring Boot REST APIs, SQL-backed workflows, third-party integrations, and Angular/Bootstrap interfaces.
- Improved database behavior through query tuning and indexing; contributed to Jenkins, Docker, Agile delivery, and operational troubleshooting.

Projects

Commerce Action Reliability Lab	Independent synthetic portfolio project Demo GitHub
- Built an executable React/TypeScript, FastAPI, and PostgreSQL comparison of free-form LLM action proposals with a bounded architecture where application code owns authoritative entity resolution, deterministic policy gates, revision-bound approval, and exact executable payloads. - Implemented a transactional outbox, idempotent synthetic HTTP boundary, same-key/different-payload conflict handling, timeout-after-success reconciliation, and append-only compensating revisions; GitHub Actions passes 61/61 deterministic and PostgreSQL integration tests. - Recorded provider responses are contract fixtures only; the live provider benchmark remains pending and no production use is claimed.	

Education and Certifications

University of North Carolina at Charlotte – M.S., Computer and Information Sciences; GPA: 3.9	Jan 2023 – May 2024
AWS Certified Solutions Architect – Associate	
CyberArk Defender – Privileged Access Management	