

Puspamitra Mishra

Engineering leadership. Applied AI. Enterprise impact.

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LinkedIn · Project portfolio



PROFILE SUMMARY

Enterprise solutions architect and senior engineering leader with 24+ years across banking, insurance, healthcare, and life sciences. Connects architecture with executive delivery: scaling global teams, modernizing cloud and API platforms, and turning AI adoption into measurable business outcomes.

24+	350+	\$47.8M	\$6M
Years in enterprise IT	Global engineering team	Reported annual AI benefit	Annualized cloud savings

WORK EXPERIENCE

- Aug 2024 - Present

Senior Engineering Leader
CVS Health / Aetna / McKesson, via TCS
API platform modernization across Azure and GCP; APIC-to-Kong migration, millions of daily transactions, and observability supporting 99.99% availability.
- Mar 2021 - Jul 2024

Senior Engineering Leader
MetLife, via TCS
Led 350+ engineers. GCP-to-Azure optimization saved ~\$500K/month; integration modernization eliminated ~\$1M/year in ACE licensing and cut maintenance 30%.
- Feb 2017 - Feb 2021

Senior Engineering Manager
Citigroup, via TCS
Migrated core Java banking systems to Spring Boot microservices on PCF, AWS, and OpenShift; governed releases and critical payment applications.
- Dec 2005 - Oct 2017

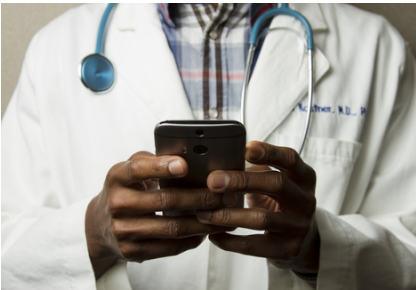
Solutions Architect / Senior Developer
Citibank, via TCS
Led 35-50 developers on banking and mortgage integration; designed underwriting rules and modernized fees and pricing platforms.

EDUCATION & PROFESSIONAL CREDENTIALS



B.E., Electronics & Telecommunication · Utkal University, India
Claude Certified Architect - Professional (2026)
TCS Generative AI Executive Level (2025) · AWS Solutions Architect - Associate (2024)
Sun Certified Java Programmer (SCJP - SE 5.0)

Life sciences & pharmaceutical intelligence



01 / LIFE SCIENCES

Clinical Research Document Intelligence for Cell & Gene Therapy

Lead AI Solutions Architect

RAG · Multi-agent drafting · Knowledge graph

Architected a GxP-validated copilot combining RAG, multi-agent drafting, and a cell and gene therapy knowledge graph across six programs. Medical writers retain accountability for clinical and regulatory content.

46%

Faster CSR drafting

81%

Less safety narrative effort

\$3.8M

Annual benefit

CONCEPTUAL WORKFLOW



[Read full case study online >](#)



02 / PHARMACEUTICALS

AI Pricing Engine for Generic Pharmaceuticals

AI Solutions Architect & Technical Lead

Predictive models · Gurobi · Salesforce CPQ

Architected segment-aware pricing for ~1,200 generic pharmaceutical SKUs. Demand and bid-win models feed Gurobi optimization, with LLM explanations in Salesforce CPQ and early warnings of competitive price erosion.

+2.6 pts

Gross margin improvement

42%

Large-account bid win rate

\$15.0M

Annual benefit

CONCEPTUAL WORKFLOW



[Read full case study online >](#)

Source: supplied Project Highlights Summary; outcomes are reported. Photos are illustrative (Unsplash).

Insurance & lending intelligence



03 / HEALTH INSURANCE

End-to-End Agentic Claims Processing Automation

Lead AI Solutions Architect

AWS · Event-driven architecture · Multi-agent AI

Designed an AWS event-driven agent pipeline for 6.5M claims annually, gathering API evidence and checking policy and coding. Exceptions reach evaluators with reasoning; the rules engine remains the system of record and humans review every denial.

6.5M Claims processed per year	89% First-pass auto-adjudication	\$14.3M Annual benefit
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CONCEPTUAL WORKFLOW



[Read full case study online >](#)



04 / BANKING & LENDING

AI-Assisted Mortgage Underwriting & Conditions Automation

AI Solutions Architect

Document AI · Verification agents · Encompass

Architected document AI, income and asset verification agents, a guideline copilot, and conditions automation inside Encompass for ~38,000 loans annually. Human underwriters retain credit decisions, with fair-lending testing and SR 11-7 controls.

27 days Loan cycle time	+53% Underwriter productivity	\$14.7M Annual benefit
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CONCEPTUAL WORKFLOW



[Read full case study online >](#)

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