

Pushkar Singh

Senior Solution Architect (AI & Cloud-Native)



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<https://blog.slayitcoder.in>



<https://portfolio.slayitcoder.in>



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EDUCATION

Major in AI

IIT Ropar
(2024 - 2026)

B.Tech in Electronics & Comm.

Ajay Kumar Garg Engg.
College(UPTU)
(2010 - 2014)

SKILLS

- Java
- AWS
- React
- Solution Design
- Agentic Workflows
- MCP
- RAG
- Stakeholder Management
- Technical Mentorship

LANGUAGE

- English
- Hindi

PROFILE

Strategic Senior Solution Architect with 11+ years of experience delivering high-scale enterprise applications and AI orchestration. Specializing in bridging the gap between **Java/AWS ecosystems** and cutting-edge **Agentic AI architectures**. Recently completed a **Major in AI from IIT Ropar** and currently leading enterprise-wide initiatives to modernize workflows through **Model Context Protocol (MCP)** and **Intelligent Agents**. Proven ability to transform legacy systems into resilient, high-availability intelligent architectures.

TECHNICAL SKILLS

- Architecture & Leadership:** Architectural Decision Records (ADRs), Cost-Benefit Analysis, Solution Design (HLD/LLD), Microservices, Event-Driven Systems, Domain-Driven Design (DDD), High-Availability Systems, and AI Governance.
- AI & Intelligent Systems:** Model Context Protocol (MCP), Agentic RAG, Spring AI, AI Agents, MCP Servers, WASM Binaries, LLMOps, Model Evaluation, Multi-Agent Systems, PyTorch, Numpy, Pandas.
- Cloud & DevOps:** AWS (Amazon Bedrock, SageMaker, EKS, Aurora, SQS, SNS, State Machines), Kubernetes, Docker, ArgoCD, Terraform.
- Core Engineering:** Java (Spring Boot, Hibernate), Python, JavaScript (React, Angular 17), Playwright.
- Data & Middleware:** Data Architecture, PostgreSQL, CMS Contentful, Directus, Oracle, MS SQL, Denodo (Data Virtualization), Apigee, Layer7, Splunk.

PROFESSIONAL DISTINCTIONS & ACHIEVEMENTS

- Technical Author:** Maintain blog.slayitcoder.in, publishing deep-dives on AI Proof of Concepts (POCs), Agentic workflows, and modern Java architecture.
- Olympiad Excellence:** Secured **National Rank 67** in the National AI Olympiad, demonstrating elite analytical and problem-solving foundational skills

PROFESSIONAL EXPERIENCE

Gartner Research and Advisory

Senior Solution Architect

April 2026 – Present

- **AI Initiative Leadership:** Define the enterprise roadmap for Agentic AI, establishing standards for **Model Context Protocol (MCP)** and secure tool-calling via WASM binaries to ensure cross-functional alignment
- **Architectural Modernization:** Own the global *HLD/LLD* lifecycle for business-critical services, translating complex technical requirements into strategic business outcomes for executive stakeholders.
- **Infrastructure Evolution:** Direct the transition toward high-availability, cloud-native architectures on AWS, prioritizing long-term scalability and "Secure-by-Design" principles across all product lines
- **ROI & Technical Selection:** Conduct cost-benefit analyses for AI model selection (LLMs vs. SLMs) and vendor integrations to optimize the total cost of ownership (TCO).
- **Security & Scalability:** Championed the adoption of latest LTS versions and vulnerability scanning, ensuring all services are resilient, performant, and secure.

Lead Developer

2021 – 2026

- **AI Initiative Implementation:** Spearheaded the development of an in-house **MCP Cataloging system**, building the first functional PoCs for standardize AI agent tool-calling
- **Micro-Frontend & Microservices Delivery:** Orchestrated the implementation of modular architectures for the gartner.com platform on AWS EKS, increasing deployment frequency through automated CI/CD and ArgoCD
- **Zero-Downtime Data Migration:** Led the critical migration from on-premise Oracle to AWS Aurora Postgres, ensuring 100% data integrity and zero service interruption during the transition.
- **Technical Mentorship & Quality:** Led a team of developers through rigorous code reviews and design sessions, championing the adoption of the latest Java LTS versions and Spring Boot best practices.
- **Operational Excellence:** Automated vulnerability scanning and security patching, reducing the enterprise attack surface while maintaining system performance and resilience.

Fidelity International

Sr. Analyst Programmer

2019 – 2021

- **Global Infrastructure Design:** Designed API providers for a Global Workplace Investing (WI) pension infrastructure, serving a diverse ecosystem of web and desktop applications.
- **Hybrid Mobile Development:** Delivered cross-platform Android/iOS applications using Ionic and Redux, enhancing the mobile experience for global pension members.
- **API Security & Governance:** Developed and dockerized secure Spring Boot endpoints; managed API traffic and security through Apigee and Layer 7 gateways.
- **Data Abstraction:** Utilized Denodo (Data Virtualization) to streamline data access across disparate sources, improving reporting performance for funds and members.
- **Company Wide Innovation:** Worked as a key player in Innovation Labs and build multiple inhouse solutions for various company wide events like TEDx.

FIS

Product Developer

2017 – 2019

- **FinTech Compliance Engineering:** Developed "Personal Trading Assistance," a high-stakes compliance product used by global banks to prevent fraudulent trade through complex rule-engine logic.
- **High-Concurrency Systems:** Optimized system throughput by implementing multithreaded processing for real-time trade monitoring and restriction.
- **Security Integration:** Engineered APIs with OAuth2 security protocols using Spring Boot, ensuring strict adherence to financial industry standards.

Infosys

Sr. System Engg.

2014 – 2017

- **Enterprise Manufacturing Solutions:** Designed and developed engine ordering systems for Cummins, facilitating global OEM orders via Spring MVC and SOAP web services.
- **Data Transformation & Validation:** Worked extensively on PLSQL blocks which ensure data correctness of the inventory data.
- **Full SDLC Ownership:** Transitioned from developer to design contributor, creating High-Level Design (HLD) documents and leading requirement analysis calls with global stakeholders.