

# ARUN SINGH

Senior Technical Architect | Generative AI Specialist | AI Force Innovator

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## PROFESSIONAL SUMMARY

Seasoned technology leader with 16+ years of experience in Generative AI, LLMs, and enterprise AI adoption. Proven expertise in designing and deploying AI Force as a product—a comprehensive platform integrating Agentic AI, Model Context Protocol (MCP), Responsible AI principles, Governance, and Compliance frameworks. Skilled in creating end-to-end AI solutions for SDLC automation, including code migration, defect detection, security assessments, and test optimization. Expert in leveraging OpenAI, Gemini, LLaMA, IBM Watsonx, and open-source models to deliver high-impact AI solutions. Strong background in Python, MLOps, Docker, Kubernetes, ETL, and cloud platforms, driving innovation and operational efficiency.

## KEY SKILLS

- AI Force Product Architecture: Agentic AI, MCP Integration, Responsible AI, Governance & Compliance
- Generative AI & LLMs: Prompt Engineering, LangGraph, CrewAI, LlamaIndex
- ML & Data Science: Classification, Regression, Anomaly Detection, Sentiment Analysis, Time Series Forecasting
- MLOps & Deployment: MLflow, DeepChecks, Fiddler Auditor, Explainability Tools
- Programming & Tools: Python, Pandas, NumPy, Scikit-learn, Matplotlib, PostgreSQL, MySQL
- Cloud & DevOps: Azure, AWS, Docker, Kubernetes, Git, Azure DevOps
- Modernization Use Cases: Code migration (.NET → Java), IBM DataStage → DBT, TIBCO → MuleSoft
- Security & Compliance: LLM Guardrails, Vulnerability Assessment

## EXPERIENCE

Senior Technical Architect | Generative AI Architect

HCL Technologies | Dec 2021 – Present | Bengaluru

- Led AI Force product development: architected platform with Agentic AI, MCP, Responsible AI, Governance & Compliance.
- Onboarded 20+ projects and 600+ users to AI Force, enabling enterprise-scale Generative AI adoption.
- Designed enterprise AI use cases: automated code migration (IBM DataStage → DBT, .NET → Java, TIBCO → MuleSoft).
- Implemented SDLC automation: user story generation, code review, clone detection, test case optimization.
- Integrated LLM Guardrails for security and compliance across AI workflows.
- Optimized LLM performance: resolved call volume issues and agent selection for use cases.
- Implemented MLOps pipelines with MLflow, DeepChecks, and Fiddler Auditor for model evaluation and governance.
- Delivered POCs for Google (duplicate defect detection), QnA generator, and document summarization.
- Tech Stack: OpenAI, Gemini, LLaMA, IBM Watsonx, Python, PostgreSQL, Azure Data Factory.

## Sr. Manager | Python Developer | Automation Lead | DevOps Engineer

Huawei Telecom India | Nov 2013 – Dec 2021 | Bengaluru

- Automated complex NRM data migration validation using Python ETL frameworks.
- Developed custom automation tools for RF engineering and business process optimization.
- Integrated Python solutions with MySQL for reusable data patterns and analytics.
- Delivered 10+ ETL pipelines using Pandas, XML parsers, and Agile methodology.

## Sr. Software Engineer

ZTE Telecom India | Jul 2008 – Nov 2013 | Gurgaon

- Built offline KPI monitoring tools using Python and MySQL.
- Developed dashboards and custom reporting solutions for telecom operations.

## ACHIEVEMENTS

- AI Force Deployment: Successfully launched enterprise AI platform with multi-project onboarding.

- Client Recognition: Appreciation for automating complex migration verification (UK client, 2020).
- Leadership Awards: Best Team Manager (Employee Choice Award, 2019).

## CERTIFICATIONS & TOOLS

- LLM & Prompt Engineering | MLops (MLflow) | Docker | Kubernetes | Azure DevOps
- LangGraph | CrewAI | LlamaIndex | MCP | OpenSearch | Hybrid Search

## HOBBIES

Long-distance running.