

Forward Deployed AI Engineer



IDEAS
AGENTS
APIS
CLOUD
IMPACT

BUILD | DEPLOY | SOLVE | SCALE

Real-World AI Solutions for Real Business Impact



Generative &
Agentic AI



Cloud
Deployment



Production-Ready
AI Solutions



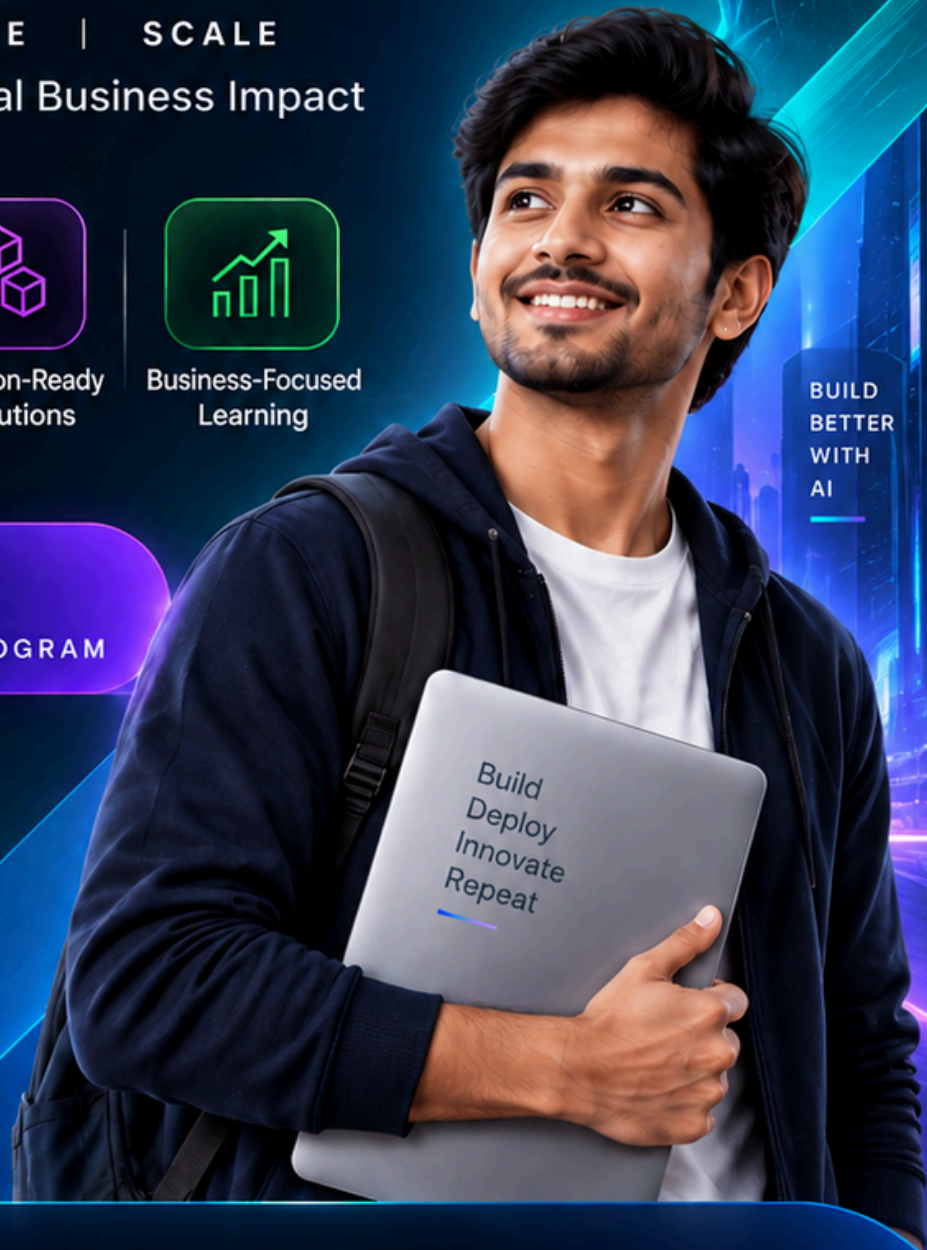
Business-Focused
Learning



3 MONTHS

INDUSTRY-ORIENTED PROGRAM

BUILD
BETTER
WITH
AI



ashokit.in



9985396677



ASHOK IT

Learn Here.. Lead Anywhere..!!

Forward Deployed Engineer



Course Overview

The Forward Deployed AI Engineer is a 3-month industry-oriented program designed to develop professionals who can build, integrate, deploy, and optimize AI solutions for real-world business problems.

The program covers the complete AI engineering journey, from Python and Generative AI fundamentals to LLM applications, RAG, AI Agents, Agentic AI, enterprise integrations, cloud deployment, AI evaluation, security, and production systems.

Learners will also develop essential Forward Deployment skills such as customer requirement analysis, AI use-case identification, solution architecture, technical scoping, POC development, production deployment, and business impact measurement.

What You Will Learn

- ✓ Build LLM-powered AI applications
- ✓ Develop enterprise RAG systems
- ✓ Build AI Agents and Agentic AI workflows
- ✓ Integrate AI with APIs and enterprise systems
- ✓ Design scalable AI architectures
- ✓ Deploy AI applications on cloud
- ✓ Evaluate, secure, monitor, and optimize AI systems
- ✓ Convert business problems into practical AI solutions



ASHOK IT

Learn Here..Lead Anywhere..!!

Forward Deployed AI Engineer



Python & Software Engineering

- Python Fundamentals
- Advanced Python
- Object-Oriented Programming
- Exception Handling
- File Handling
- Modules & Packages
- Virtual Environments
- Async Programming
- Logging & Debugging
- Type Hints & Dataclasses
- Git & GitHub
- Software Development Best Practices



- Prompt Engineering
- Prompt Templates
- Few-Shot Prompting
- Context Engineering
- Prompt Chaining
- Structured Outputs
- JSON & JSON Schema
- Pydantic Validation
- Function Calling
- Model Selection
- Token & Cost Optimization
- Prompt Security



AI & Generative AI Fundamentals

- Artificial Intelligence Fundamentals
- Machine Learning Overview
- Deep Learning Overview
- NLP Fundamentals
- Generative AI
- Foundation Models
- Large Language Models
- Multimodal AI
- LLM Capabilities & Limitations
- Transformer Architecture
- Attention Mechanism
- Tokens & Tokenization
- Context Windows
- Model Inference



AI Application Development

- AI Application Architecture
- FastAPI Fundamentals
- REST APIs
- Request & Response Handling
- Pydantic
- API Validation
- Authentication
- Authorization
- JWT
- API Documentation
- Async APIs
- Streaming Responses
- Server-Sent Events
- WebSockets
- AI Backend Architecture



LLM Application Engineering

- LLM APIs
- API Authentication
- Model Parameters



Retrieval-Augmented Generation (RAG)

- RAG Fundamentals
- RAG Architecture
- Document Processing
- PDF & DOCX Processing
- Data Cleaning
- Document Ingestion
- Chunking Strategies





Forward Deployed AI Engineer



- Metadata Management
- Embeddings
- Vector Representations
- Similarity Search
- Vector Databases
- FAISS
- Chroma
- PostgreSQL + pgvector



Advanced RAG Engineering

- Semantic Search
- Keyword Search
- Hybrid Search
- Top-K Retrieval
- Metadata Filtering
- Reranking
- Query Rewriting
- Query Transformation
- Multi-Query Retrieval
- Context Compression
- Parent-Child Retrieval
- Citation-Based RAG
- Agentic RAG
- RAG Optimization
- RAG Evaluation



AI Agents & Agentic AI

- AI Agent Fundamentals
- LLM Applications vs Workflows vs Agents
- Agent Architecture
- Agent Planning
- Agent Reasoning
- Agent Execution
- Tool Calling
- Function Calling
- Tool Design
- Tool Selection
- Tool Execution
- Agent State Management



- Agent Control Flow
- Agent Memory
- Agent Error Handling



Advanced Agentic AI

- Short-Term Memory
- Long-Term Memory
- Persistent Memory
- Agent Workflows
- Sequential Workflows
- Parallel Workflows
- Conditional Workflows
- Routing
- Task Delegation
- Human-in-the-Loop
- Multi-Agent Systems
- Supervisor & Worker Agents
- Agent Coordination
- Agent Reliability
- Agent Evaluation



AI Frameworks & MCP

- LangChain
- LangGraph
- OpenAI Agents SDK
- Agent Orchestration
- Model Context Protocol (MCP)
- MCP Architecture
- MCP Clients
- MCP Servers
- MCP Tools
- MCP Resources
- Connecting Agents to External Systems
- Tool & Resource Management



AI Evaluation, Guardrails & Security

- AI Evaluation Fundamentals
- Evaluation Datasets





Forward Deployed AI Engineer



- Golden Datasets
- Test Cases
- Regression Testing
- LLM Evaluation
- RAG Evaluation
- Agent Evaluation
- Hallucination Detection
- Faithfulness
- Response Quality
- AI Guardrails
- Input Validation
- Output Validation
- PII Protection
- Prompt Injection
- Jailbreak Prevention
- Data Leakage
- AI Security



Docker, Cloud & DevOps

- Docker Fundamentals
- Docker Images
- Containers
- Dockerfile
- Docker Compose
- Container Networking
- Cloud Computing Fundamentals
- AWS Fundamentals
- IAM
- EC2
- S3
- RDS
- VPC
- Load Balancer
- CloudWatch
- Secrets Management
- CI/CD
- GitHub Actions
- Application Deployment



Databases & Enterprise Integrations

- SQL Fundamentals
- PostgreSQL
- Database Design
- Relationships
- Joins
- Indexing
- Transactions
- PostgreSQL for AI Applications
- pgvector
- Redis
- Caching
- Session Management
- REST API Integration
- Webhooks
- OAuth Fundamentals
- Enterprise API Integration
- CRM Integration
- Helpdesk Integration
- Email & Communication APIs



Kubernetes & Production AI

- Kubernetes Fundamentals
- Kubernetes Architecture
- Pods
- Deployments
- Services
- ConfigMaps
- Secrets
- Scaling
- Production Deployment
- Scalability
- Reliability
- Availability
- Performance Optimization
- Logging
- Monitoring
- Metrics
- Tracing





Forward Deployed AI Engineer



- Observability
- AI Cost Optimization
- Latency Optimization
- Error Handling
- Retry & Fallback Strategies



- Technical Scoping
- Project Scope
- Dependencies
- Assumptions
- Constraints
- Risks
- Acceptance Criteria
- POC Development
- MVP Planning
- POC to Production



Forward Deployment Engineering

- Introduction to Forward Deployment
- Role of a Forward Deployed AI Engineer
- Customer-Facing Engineering
- Customer Discovery
- Stakeholder Identification
- Requirement Gathering
- Business Workflow Analysis
- Problem Definition
- Pain Point Identification
- AI Use-Case Identification
- AI Feasibility Analysis
- Business Value Analysis
- Technical Requirements
- Functional Requirements
- Non-Functional Requirements



Enterprise AI Deployment & Adoption

- Enterprise AI Deployment
- Production Rollout
- Integration Testing
- Performance Testing
- User Acceptance Testing
- Customer Onboarding
- Technical Documentation
- User Training
- Knowledge Transfer
- Customer Feedback
- AI Adoption
- Usage Monitoring
- Workflow Optimization
- Continuous Improvement
- Business Impact Measurement
- Productivity Measurement
- Automation Metrics
- Cost Savings
- ROI Measurement



AI Solution Architecture & Technical Scoping

- Solution Architecture
- AI System Architecture
- LLM Architecture
- RAG Architecture
- Agent Architecture
- Data Architecture
- API Architecture
- Integration Architecture
- System Design
- Data Flow Diagrams
- AI Workflow Design



Tools & Technologies You Will Learn



Programming & Backend

- Python
- SQL
- FastAPI
- REST APIs
- Pydantic



Generative AI & LLM

- LLM APIs
- Open-Source LLMs
- Prompt Engineering
- Structured Outputs
- Function / Tool Calling
- Embeddings
- Multimodal AI



RAG & Vector Databases

- LangChain
- FAISS
- Chroma
- PostgreSQL
- pgvector
- Vector Databases
- Semantic & Hybrid Search



Agentic AI

- LangGraph
- OpenAI Agents SDK
- AI Agents
- Multi-Agent Systems
- Agent Memory
- Tool Calling
- MCP (Model Context Protocol)



Database & Integration

- PostgreSQL
- Redis
- REST APIs
- Webhooks
- OAuth
- CRM & Enterprise API Integration



Cloud & DevOps

- Git & GitHub
- Docker
- GitHub Actions
- AWS
- EC2
- S3
- RDS
- IAM
- CloudWatch
- Load Balancer
- Kubernetes Fundamentals



Production AI

- AI Evaluation
- Guardrails
- AI Security
- Logging
- Logging
- Monitoring
- Observability
- Cost Optimization
- Performance Optimization



Career Opportunities

After completing the program, learners can explore career opportunities across AI engineering, applied AI, agentic systems, and AI deployment.

- Forward Deployed AI Engineer
- AI Engineer
- Generative AI Engineer
- LLM Engineer
- Applied AI Engineer
- AI Application Engineer
- Agentic AI Engineer
- AI Solutions Engineer
- RAG Engineer
- AI Automation Engineer
- AI Integration Engineer
- AI Platform Engineer
- AI Solutions Architect





ASHOK IT

Learn Here.. Lead Anywhere..!!

OUR STUDENTS SUCCESS STORY



Triveni

as Java Developer
Ergo Tech | 10.5 LPA



Harsha

as Java Developer
Bajaj | 22 LPA



Akash

as Java Developer
NeoSOFT | 10.5 LPA



Sid

as Java Developer
KadelLabs | 8 LPA



Pawan

as Java Developer
NatRiX 99 | 4.6 LPA



Tarun

as Data Analyst
Value Monentum | 8 LPA



Amit Ghatage

as Java Developer
MNC | 19.8 LPA



Bhaskar

as Java Developer
TCS | 3.6 LPA



Ratha Raju

as Java Developer
Infosys | 4.3 LPA



Chetan M

as Java Developer
Traget | 22 LPA



Ashish

as Java Developer
Cognizant | 16 LPA



Nagesh

as Java Developer
Sodel | 6 LPA



Rohit

as Python Developer
amdocs | 7 LPA



Chitturi Prasad

as Java Developer
Virtusa | 21 LPA



Chennakesava

as Java Developer
Cognizant | 10 LPA



Albasith

as Java Developer
TCS | 11 LPA



Saritha

as Data Scientist
BirlaSoft | 17.3 LPA



Satya

as Java Developer
Volkswagen | 16 LPA



Manam Mangal

as Java Developer
Ericsson | 9 LPA



Syamala M

as Data Scientist
MindTree | 10 LPA



ASHOK IT

Learn Here.. Lead Anywhere...!!



Manikanta

as Python Developer
Persistent | 12 LPA



Sirisha

as Python Developer
DXC | 8 LPA



Ravindra Tanniru

as Python Developer
Accenture | 5.4 LPA



Ashrith

as Data Analyst
Benz | 17.5 LPA



Shubham

as Data Scientist
Rakuten | 13.4 LPA



Vineela

as DevOps Engineer
Tech Mahindra | 12 LPA



Dipali Savle

as Java Developer
IBM | 13.5 LPA



Sushir Sourav

as Data Analyst
CRESCENT | 9 LPA



Debasish

as DevOps Engineer
Faurecia | 14 LPA



Sumendra

as DevOps Engineer
TCS | 7.3 LPA



Rushikesh

as Java Developer
Brillio | 7.5 LPA



Sathish

as Java Developer
Maneva | 10 LPA



Manish

as Java Developer
NeoSOFT | 10.5 LPA



Sai Kumar

as Java Developer
iGATE | 7.5 LPA



Thirupati Bukya

as DevOps Engineer
Hewlett | 12 LPA



Charithasree

as Java Developer
TCS | 7 LPA



Pavani

as Java Developer
4 LPA



Lakshmi Kumari

as Java Developer
ORACLE | 4 LPA



Rakesh

as Python Developer
VXO Digital | 6 LPA



Usha Bargale

as Java Developer
HCL | 16 LPA



Amitav Sahu

as DevOps Engineer
DynaTrace | 4.5 LPA



Abdul Rahman

as Java Developer
Cognizant | 8 LPA



Maruthi

as Data Analyst
Priya Qubitt | 3 LPA



Sana Nishad

as Java Developer
S T A | 3 LPA



Lakshman

as Java Developer
Mahasunya | 3 LPA

This Could Be **You**
Start Your **IT Career** Today



“Placement Process”



TECHNICAL KNOWLEDGE

Master in-demand skills, tools, and frameworks used in companies.



LIVE PROJECT

Work on real-time industry projects to gain hands-on experience.



INTERVIEW

Mock interviews + HR & technical preparation.



CV BUILD-UP

Create a powerful ATS friendly resume with project highlights.



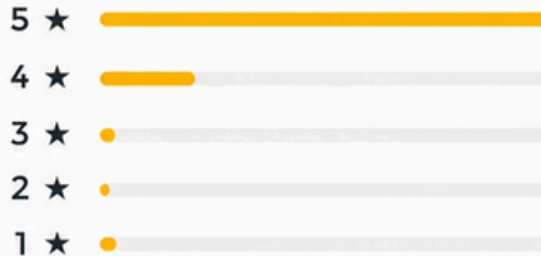
JOB

Get placed in top companies with placement support.

Here's what our **Students** saying about **Ashok IT** teaching.



Based on **3,051** reviews



Shubham Potdukhe
1 review



ASHOK IT is one of the best training institutes I have come across. The teaching style is extremely clear, structured, and practical. Every concept is explained from basics to advanced level with real-time examples, which makes learning ... [More](#)



Ramana Reddy Pothala
4 reviews



I got quality content along with some confidence. You explained so many topics that we need. Which really helped me to learn quickly. The only disappointment in the course is taking some time. It may be because of various reasons. Overall I'm deeply want quality subject my first preference is ASHOK IT.



Swetha Gunturi
6 reviews



Hi All,

I want to write this feedback because I got real genuine content on AshokIT.



... [More](#)



Pradeep Andhale
4 reviews



Ashok IT is the best place to learn Java and Spring Boot & Java Real-time Projects. Ashok sir teaches concepts clearly with real-time examples, making learning easy and practical. Perfect for beginners and professionals who want to grow fast! 🙌



kalyan g
3 reviews



Ashok sir class is always very good and we have learnt some effective concept of github copilot. One suggestion to Ashok sir recently in the current classes or workshops people are asking doubts in between and just breaking the flow of ... [More](#)



Nagender
Local Guide · 30 reviews



Ashok Sir is truly amazing! His way of explanation is top notch, making complex topics easy to understand. I highly recommend him for anyone looking to learn about Javs, Microservices and real time projects.



Radha Malapati
1 review



Ashok IT institute is extremely good and very beneficial for anyone looking to build strong technical skills. The teaching quality is excellent — the instructors explain concepts in a clear, simple, and practical way that makes learning ... [More](#)



eainj
6 reviews



I attended Workshop on Github Copilot by Ashok sir It is really awesome I learnt a lot how to integrated github copilot into my IDE to improve productivity ... [More](#)



rushikesh dolas
Local Guide · 10 reviews · 13 photos



The Spring Boot Microservices classes were excellent. The Ashok Sir explained the concepts clearly, and the hands-on projects really helped me understand real-world microservices architecture. Highly recommended!



Ankit Singh
1 review



Ashok IT provides nice Spring Boot training with clear explanations and real-time project examples. The instructor makes complex concepts easy to understand for both beginners and ... [More](#)



Pradeep Andhale
4 reviews



Ashok IT is the best place to learn Java and Spring Boot & Java Real-time Projects. Ashok sir teaches concepts clearly with real-time examples, making learning easy and practical. Perfect for beginners and professionals who want to grow fast! 🙌



ASHOK IT

Learn Here.. Lead Anywhere..!!



ashokitschool



ashokitschool



@ashokit



9985396677



www.ashokit.in



info@ashokit.in



Ameerpet: 5th Floor, Swathi anukar complex, Beside Aditya Trade Center, Ameerpet, Hyderabad, Telangana 500016.