

AI CONSULTANT + AI DEVELOPER

COURSE OVERVIEW

Step into the world of AI Engineering, where data meets intelligence. This field blends core disciplines like Artificial Intelligence, Machine Learning, and Data Science to build solutions that learn and adapt. Transformers powering today's Large Language Models (LLMs), the possibilities are endless.

You'll get hands-on with industry-leading AI tools and develop smart AI agents capable of reasoning, interacting, and automating tasks—pushing the boundaries of what's possible with technology.



COURSE CONTENTS

- 1. BASICS OF AI
- 2. MACHINE LEARNING MODELS
- 3. LARGE LANGUAGE MODELS(OPENAI ETC)
- 4. MCP SERVERS
- 5.AI TOOLS
- 6. **RAG**
- 7. AI AGENTS
- 8. AGENTIC AI
- 9. END TO WORKFLOWS USING AI AGENTS
- 10. AI AGENT IMPLEMENTATION
- 11. PYTHON CODING SKILLS
- 12. MACHINE LEARNING ALGORITHMS
- 13. DEEP LEARNING NEURAL NETWORKS / NLP
 NATURAL LANGUAGE PROCESSING
- 14. DATA REPORTING POWER BI
- 15. AZURE DATA ENGINEERING



1. Basics of Al

- Step into the world of Artificial Intelligence
- Definition and goals of Al: Narrow, General, and Super Al
- Real-world applications: chatbots, recommendation systems, selfdriving cars, healthcare assistants
- Difference between Al, Machine Learning, and Data Science
- How Al systems "think" and make decisions
- Ethical and responsible use of Al

2. Machine Learning Models

- Introduction to Machine Learning and its types: Supervised, Unsupervised, and Reinforcement Learning
- Understanding key algorithms such as Decision Trees, Regression, and Clustering (conceptual, no coding)
- Real-world case studies: spam filters, product recommendations, anomaly detection
- How ML models are trained, validated, and deployed
- Future trends: AutoML and no-code ML platforms

3. Large Language Models (OpenAI, Claude, Gemini, etc.)

- Dive into the AI brains behind today's conversational tools like ChatGPT and Claude.
- How Transformers and LLMs like GPT, BERT, and T5 work (simplified overview)
- Understanding prompts, context windows, and tokenization
- Hands-on demos: using OpenAl Playground & Hugging Face models
- Use cases: content generation, text summarization, chatbots, and automation

IT TALENT HUB

OVER 15 years Experience in IT Trainings in UK

4. MCP Servers (Model Context Protocol)

- What is the Model Context Protocol (MCP) and how it connects AI models with real-world data sources
- Hosting and managing AI backends using MCP servers
- Overview of integrating AI tools and services under one architecture
- How MCP enables plug-and-play AI agents and automation pipelines

5. Al Tools (Hands-On Overview)

- ChatGPT, Claude, Gemini text intelligence
- Midjourney, DALL-E 3 image generation
- ElevenLabs, PlayHT voice synthesis
- Runway, D-ID video and digital avatar creation
- LangChain, AutoGPT, and Vercel SDK frameworks for agent and app development
- Bubble.io & Gradio building AI apps visually (no code required)

6. RAG (Retrieval-Augmented Generation)

- What is RAG and how it enhances LLM accuracy
- Using your own data sources (PDFs, websites, databases) with AI
- Concept of vector databases and embeddings (simplified demo)
- Real-world use cases: customer-support bots, knowledge assistants, research copilots
- Building a mini RAG workflow using OpenAl API + LangChain (no code)

IT TALENT HUB

OVER 15 years Experience in IT Trainings in UK

7. Al Agents

- Introduction to Al Agents and multi-agent systems
- Types: Reactive, Deliberative, and Hybrid Agents
- Use cases: task automation, workflow orchestration, scheduling, and data analysis
- Essential frameworks: AutoGPT, SuperAGI, Fixie.ai, LangGraph
- Build a simple Al Agent workflow to complete multi-step business tasks

8. Agentic Al

- What "Agentic Al" means and how it extends beyond single Al prompts
- How multiple agents collaborate and make decisions dynamically
- Example: An AI that plans, researches, and executes tasks automatically
- The role of context engineering, memory, and feedback loops in reliable agents
- Build an Agentic Al Flow using no-code platforms like n8n, LangFlow, or Flowise

9. End-to-End Workflows Using Al Agents

- Designing a complete workflow using AI tools and agents
- Connect LLMs, databases, APIs, and automations
- Build a live "Al-powered business assistant" (no coding)
- Integration with MS Teams, Google Workspace, and CRM tools
- Project: Automate your own business task using Agentic Al



OVER 15 years Experience in IT Trainings in UK

10. AI AGENTS IMPLEMENTATION

- Introduction to Al Agents
- Types of Al Agents (reactive, deliberative, hybrid)
- Multi-Agent Systems and Applications (e.g., robotics, gaming)
- Future Trends in Al Agents (IoT integration, ethical considerations)

Essential Tools:

- AutoGPT (Agent development)
- LangChain (Framework)
- Fixie.ai (Development platform)
- SuperAGI (Infrastructure)
- Chipp.ai (Marketplace)

11. Python Coding Skills

- Understanding the reason of Python's popularity
- Different IDE, Anaconda and Jupyter Notebook
- Basics of Python
- Conditional Statements if, nested if
- Loops for , while
- String, List, Tuple, Set, Dictionary
- Functions Types of functions



OVER 15 years Experience in IT Trainings in UK

12. Machine Learning Algorithms

- Introduction to Machine Learning Algorithms
- Different Types of Machine Learning Algorithms
- EDA using Pandas libraries
- Regression Algorithms
- Classification Algorithms
 - Decision Trees
- Advanced Machine Learning Algorithms
 - o Bagging Techniques Random Forest Algorithm
- o Boosting Techniques Gradient Boosting Machine (GBM), Extreme

Gradient Boosting Machine (XGBM), AdaBoost

- Unsupervised Machine Learning Algorithms
 - K-Means Clustering

13. Deep Learning Neural Networks

- Introduction to Deep Learning
- Convolutional Neural Networks
- Tensorflow and Keras
- Different types of Activation functions

Projects: Image Classification Using CNN



OVER 15 years Experience in IT Trainings in UK

Natural Language Processing

- Overview of NLP
- Data Preprocessing
- NLTK Package
- NLP Model Development

Projects: Email Spam Classifications

14. Data Reporting (POWER BI)

- Importance of Data Visualization in Business Intelligence
- Connecting to Data from Various Sources in Power BI
- Data Transformation using Power Query Editor
- Advanced Visualization Techniques in Power BI
- Creating Reports, and Analytical Dashboards with Custom Themes

15. Azure Data Engineering

- Introduction to Azure Data Services
- Azure Data Storage Options
- Data Ingestion and Integration with Azure Data Factory (ADF)
- ETL Processes in Azure
- Data Transformation and Processing
- Performing Data Engineering in Azure
- Machine Learning in Azure DataBricks



<u>ENROLMENT LINK:</u> https://2ejigc.share-eu1.hsforms.com/2SQ-i8DNuRGGCToDw57h6tg

<u>TARGET JOBS</u>: Al Engineer, Al Developer, Machine Learning Engineer, Deep Learning Engineer, Data Scientist, Al Research Scientist, Al Product Manager

Salary: START FROM 60K

DURATION: 3 MONTHS

SCHEDULE: 3 BATCHES

Weekend Batch - Sat and Sun 10 am - 1 pm or 2pm - 5pm Weekday Batch - Mon, Wed, Thur 6pm -8pm Weekday Batch - Mon, Wed, Thur 11am -1pm

MODE OF TRAINING:

ONLINE (MS TEAMS) OR FACE TO FACE

BENEFITS:

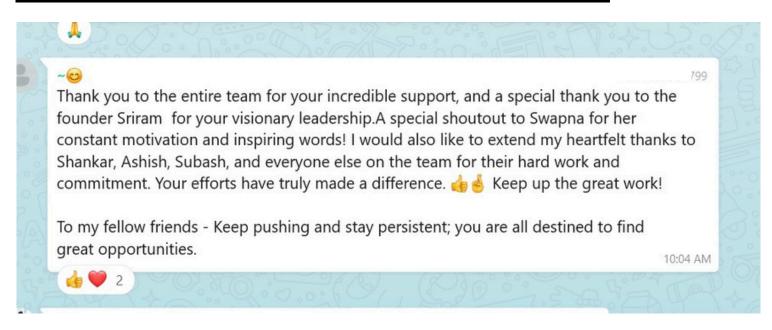
- Recorded sessions: Every session will be recorded in Ms Teams so that you
 can review the class any time upto 3 months.
- Course material: Every session will be backed up by the course content in pdfs, docs and excel so that it will help for further learning and homework.



RECENT TESTIMONIAL FROM KARTHIKEYAN:

"I am a Data Scientist actively seeking placement opportunities in the UK. During my search, I discovered IT Talent Hub and utilized their services. Thanks to their assistance, I am now successfully placed in a reputable company. I am immensely grateful to the department faculty, Subash and Swapna, as well as Director Sree Ram, and the placement cell for their invaluable guidance throughout the process. My experience with IT Talent Hub and its placement procedure was truly exceptional. The placement cell exhibited thorough knowledge and provided support at every stage"

RECENT TESTIMONIAL FROM POOVALAZHI



TO KNOW MORE DETAILS AND FEE STRUCTURE

Contact us

- (c) +44 7459 334316
- **Ⅲ** ITTALENTHUB.CO.UK
- **☑** INFO@ITTALENTHUB.CO.UK



SUITE 1, 3RD FLOOR, FOREST HOUSE, 16-20 CLEMENTS RD, ILFORD, LONDON IG1 1BA

DISCOUNT:

Many discounts like Student, Alumni, Referral etc available.

General FAQ:

- 1.Duration of the course
- 3 months
- 2.Do you provide materials for the course? YES. Running notes, Admin guides etc, teams recordings.
- 3. What is the course fee?

The fee for the total duration of the course, including tutor fees, course material is £1299.

- 4. What courses do you offer for students?
- **AI Testing**
- Al Consultant/Engineering
- Al Ops
- Al development
- 5. Is the course refundable?

Yes, if you don't like the training within a week we can transfer you to new course to a new batch or Refund.

- 6. Payment Plan
- o Yes, we have a special plan to pay in 3 instalments for students. The total fee of £1299 which is payable in 3 instalments:
- ∑ £200 (Refundable) Deposit to enrol in the course
- $\ \square$ 50% of balance After 2 weeks of the course
- □ Rest of the payment After 6 weeks of the course

- 7. Can I do this course outside the UK?
- o Yes, we have students from different countries who are doing the course.
- 8. What is the fee for students outside the UK?
- o Depends upon the currency. Please contact us for more details via WhatsApp +44 7459 334316
- 9. Is it a live session or recorded session?
- o It's a live session which is recorded for future reference for the students.
- 10. What are the timings of the course?
- o Weekdays: Mon/Wed/Thu 11 AM 1 PM (OR) 6 PM 8 PM (6 hours per week)
- o Weekends: Sat and Sun 10 AM 1 PM or 2PM 5PM (6 hours per week)
- 11. What if I miss a session?
- o You can always go through the recording of the class you missed. If you have any doubts, you can connect with the trainer.
- 12. Is the course interactive?
- o Yes, it is a live class. During the class, the trainer will discuss some technical questions.
- 13. Who will be the trainer?
- o Trainers are all 10-15+ years experienced professionals working in multinational companies, who will help you with their real-time experience.
- 14. What if I join in the middle of the course?
- o Based on your profile, you can join in the middle of the course. Our trainer will take catch-up sessions to cover the topics that have been covered so far in the class.

15. What if I want to discontinue in the middle of the course? o We don't encourage discontinuation. However, in an emergency, please contact us. We will put you in a different batch and discuss individual circumstances.