KOENIG SOLUTIONS · COURSE OUTLINE

Gen AI Tools: ChatGPT, Hugging Face & Prompts

Learn to apply AI fundamentals, prompt engineering, Hugging Face models and ChatGPT for data analysis, reporting and ethical AI practice.

3 Days	7	35
24 HOURS	MODULES	TOPICS

COURSE OVERVIEW

This course covers the fundamentals of artificial intelligence, including machine learning and deep learning concepts, before moving into prompt engineering techniques for crafting and fine-tuning effective prompts. It then examines Hugging Face tools for natural language processing, computer vision and video generation, followed by approaches to communicating AI concepts and insights to technical and non-technical audiences. Later modules address using ChatGPT within Excel and reporting workflows, applying ChatGPT for in-depth data analysis, and finish with ethical considerations such as fairness, privacy and responsible data governance in AI projects.

WHO THIS COURSE IS FOR

Data Analysts | **AI Practitioners** | **Business Analysts** | **Reporting Specialists** | **Non-Technical Stakeholders** | **Data Scientists**

LEARNING OBJECTIVES

- Explain core AI concepts including machine learning and deep learning
- Craft and fine-tune prompts for specific AI tasks
- Apply Hugging Face models for NLP, vision and video generation
- Communicate AI concepts and results to non-technical stakeholders
- Build data visualisations and narratives to present AI insights
- Integrate ChatGPT with Excel for AI-driven reporting
- Analyse data using ChatGPT for exploratory and advanced analysis
- Assess ethical implications such as bias, privacy and governance in AI

COURSE SYLLABUS

7 Modules, 35 Topics

01

AI Fundamentals

TOPICS

- Introduction to Artificial Intelligence
- **Types of AI:** From Narrow to General Intelligence
- **Machine Learning Basics:** Supervised, Unsupervised, and Reinforcement Learning
- **Deep Learning Fundamentals:** Neural Networks, CNNs, RNNs
- AI Applications Across Industries

02

Prompt Engineering Mastery

TOPICS

- **Understanding Prompt Engineering:** Basics and Importance
- Crafting Effective Prompts for AI Models
- Fine-tuning Language Models with Prompts
- Leveraging Prompt Engineering for Specific Tasks
- Case Studies on Prompt Engineering Successes

03

Hugging Face for AI: NLP, Computer Vision, and Video Generation

TOPICS

- Introduction to Hugging Face and its Role in NLP, Computer Vision, and Video Generation
- **Exploring Hugging Face Transformers for NLP:** Models and Architectures
- Utilizing Hugging Face Models for Computer Vision Tasks
- Generating Videos with Hugging Face Models
- Hands-on Experience with Hugging Face API for NLP, Computer Vision, and Video Generation

04

Efficient Communication

TOPICS

- Importance of Communication in AI Projects
- Communicating AI Concepts to Non-Technical Stakeholders
- Data Visualization Techniques for Effective Communication
- **Storytelling with Data:** Crafting Compelling Narratives
- Best Practices for Communicating AI Results and Insights

05

Advanced AI in Excel and Reporting

TOPICS

- Introduction to AI Integration with Excel and Reporting Tools
- Using Excel for Basic Data Analysis and Visualization
- Incorporating ChatGPT for AI-Driven Insights in Excel
- Building Interactive Reports with ChatGPT-Generated Insights
- Automation Techniques for Streamlined Reporting Processes

06

In-Depth Data Analysis Using ChatGPT

TOPICS

- Introduction to ChatGPT for Data Analysis
- Data Collection and Preprocessing with ChatGPT
- Exploratory Data Analysis (EDA) with ChatGPT
- Advanced Data Analysis Techniques using ChatGPT
- Generating AI-Driven Reports and Insights with ChatGPT

07

Ethical AI Practices

TOPICS

- Understanding the Ethical Implications of AI
- Fairness and Bias in AI Algorithms
- Privacy and Security Concerns in AI Systems
- Responsible Data Handling and Governance
- Ethical Decision-Making Frameworks for AI Projects

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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