

AI+ Prompt Engineer Level 1™

Duration: 8 hrs

Course Overview

The AI+ Prompt Engineer Level 1 Certification Program introduces learners from diverse backgrounds and levels of expertise to the fundamental principles of artificial intelligence and prompts engineering. Covering the history, concepts, and applications of AI, machine learning, deep learning, neural networks, and natural language processing, the program also delves into best practices for designing effective prompts that harness the capabilities of AI models to their fullest potential. Through a combination of theoretical instruction and practical exercises, including project-based learning sessions, participants acquire the skills needed to create and utilize prompts across various domains and objectives.

Course Prerequisites

- Understand AI basics and how AI is used - no technical skills required
- Willingness to think creatively to generate ideas and use AI tools effectively

Course Agenda

Module 1: Foundations of Artificial Intelligence (AI) and Prompt Engineering

- Introduction to Artificial Intelligence
- History of AI
- Basics of Machine Learning
- Deep Learning and Neural Networks
- Natural Language Processing (NLP)
- Prompt Engineering Fundamentals

Module 2: Principles of Effective Prompting

- Introduction to the Principles of Effective Prompting
- Giving Direction
- Formatting Responses

- Providing Examples
- Evaluating Quality
- Dividing Labor
- Applying The Five Principles
- Fixing Failing Prompts

Module 3: Introduction to AI Tools and Models

- AI Tools and Models Landscape
- Deep Dive into ChatGPT
- Exploring GPT-4
- Revolutionizing Art with DALL-E 2
- Introduction to Emerging Tools using GPT
- Specialized AI Models
- Advanced AI Models
- Google AI Innovations
- Comparative Analysis of AI Tools
- Practical Application Scenarios
- Harnessing AI's Potential

Module 4: Mastering Prompt Engineering Techniques

- Zero-Shot Prompting
- Few-Shot Prompting
- Chain-of-Thought Prompting
- Ensuring Self-Consistency in AI Responses
- Generate Knowledge Prompting
- Prompt Chaining
- Tree of Thoughts: Multiple Solutions Exploration
- Retrieval Augmented Generation
- Graph Prompting and Advanced Data Interpretation
- Application in Practice: Real-Life Scenarios
- Practical Exercises

Module 5: Mastering Image Model Techniques

- Introduction to Image Models
- Understanding Image Generation
- Style Modifiers and Quality Boosters in Image Generation
- Advanced Prompt Engineering in AI Image Generation

- Prompt Rewriting for AI Image Models
- Image Modification Techniques: Inpainting and Outpainting
- Realistic Image Generation
- Realistic Models and Consistent Characters
- Practical Application of Image Model Techniques

Module 6: Project-Based Learning Session

- Introduction to Project-Based Learning in AI
- Selecting a Project Theme
- Project Planning and Design in AI
- AI Implementation and Prompt Engineering
- Integrating Text and Image Models
- Evaluation and Integration in AI Projects
- Engaging and Effective Project Presentation
- Guided Project Example

Module 7: Ethical Considerations and Future of AI

- Introduction to AI Ethics
- Bias and Fairness in AI Models
- Privacy and Data Security
- The Imperative for Transparency in AI Operations
- Sustainable AI Development: An Imperative for the Future
- Ethical Scenario Analysis in AI: Navigating the Complex Landscape
- Navigating the Complex Landscape of AI Regulations and Governance
- Navigating the Regulatory Landscape: A Guide for AI Practitioners
- Ethical Frameworks and Guidelines in AI Development