# Prompt Engineering Hands-On Workshop for Network Engineers

**ANI_424 | Expert-Led Live | Automation and Insights | Expert**
**Course Duration:** 2 days

Unleash the full potential of Large Language Models (LLMs) through hands-on exploration of Prompt Engineering in this workshop. We'll delve into the theoretical and practical aspects of crafting effective prompts, equipping you with the tools and techniques to unlock creative and informative outputs from LLMs like ChatGPT. The workshop will begin by demystifying the anatomy of prompts, breaking down their components and exploring different types including open-ended, constrained, and zero-shot prompts. We'll dive into the principles of effective prompting, focusing on techniques like clarity, context, and specificity to steer LLMs towards desired outputs. The workshop covers both manual and programmatic ways to engineer prompts for effective results and automation. Each technique is reinforced with hands-on exercises in this workshop.

## Intended Audience

Anyone curious about language models and interested in exploring their potential through effective prompting.

## Objectives

After completing this course, the learner will be able to:

- Describe the basics of AI
- Identify the key components of effective prompts
- Write basic prompts
- Engineer prompts for various tasks
- Explain responsible prompting practices
- Compare and contrast prompt engineering techniques
- Sketch the process to enhance LLM with RAG and Vector database

## Outline

1. Introduction to AI
1.1 What is AI?
1.2 AI and Gen AI in the Telecom Industry
1.3 Relevance of AI in 5G Network

2. Demystifying Prompts
2.1 What are Large Language Models?
2.2 The Magic of Prompts
2.3 Prompt Anatomy
2.4 Best Practices
Exercise: Prompt Playground - Build basic prompts
Exercise: Refining Prompts

3. Advanced Prompt Techniques
3.1 Zero-shot Prompts
3.2 Few-shot learning
3.3 Chain of Thought (CoT)
3.4 Assign Persona
3.5 Other techniques
Exercise: Build a Persona based prompt
Exercise: Building a Zero-shot prompt
Exercise: Building a Few-shot prompt
Exercise: Building a CoT prompt

4. Programming for Prompt Engineering
4.1 OpenAI APIs
4.2 LangChain
4.3 RAG
Exercise: Use APIs for various prompts

5. Evaluating Prompts
5.1 Measuring prompt effectiveness
5.2 Refining prompts
5.3 Removing prompt ambiguity
5.4 Prompt experimentation
Exercise: Prompt evaluation

6. Responsible Prompting and Future Visions
6.1 Ethical Considerations
6.2 Looking Ahead
Exercise: Final Project Brainstorming

7. Ask us about using your platforms/data