

# Introduction to Artificial Intelligence & Prompt Engineering

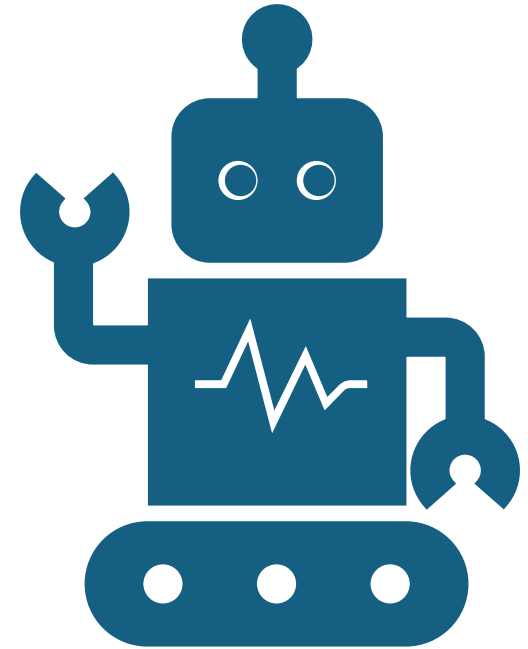
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# What is Artificial Intelligence (AI)?


- Definition: AI is the simulation of human intelligence in machines programmed to think and learn.
- Types of AI:
  - Narrow AI (e.g., Siri, Google Translate)
  - General AI (theoretical)
  - Super AI (hypothetical, future)
- Examples: Chatbots, Self-driving cars, Facial recognition



# What is Prompt Engineering?

- Definition: The practice of crafting inputs (prompts) to get desired outputs from AI models like ChatGPT.
- Role in AI: Acts as the bridge between human intention and AI response.
- Use Cases:
  - Content generation
  - Code assistance
  - Research summaries
  - Educational tools





# Importance & Real-world Applications

## **AI Applications:**

- Healthcare: Diagnosis support, drug discovery
- Finance: Fraud detection, trading algorithms
- Education: Personalized learning platforms
- Transportation: Autonomous vehicles

## **Prompt Engineering Applications:**

- Improving AI outputs in chatbots and virtual assistants
- Boosting productivity (emails, resumes, social media content)
- Rapid prototyping in software development



# Key Concepts to Know

## **AI Concepts:**

- Machine Learning
- Neural Networks
- Natural Language Processing (NLP)

## **Prompt Engineering Concepts:**

- Temperature, token limits (affect output style)
- Few-shot prompting (examples in prompt)
- Role-based prompting (“You are a helpful tutor...”)

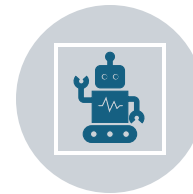
# Future Scope of AI & Prompt Engineering



Smarter, more ethical  
AI systems



AI in climate solutions  
and sustainability



AI-human  
collaboration in  
creativity and science



Specialized prompt  
design roles



Integration in all  
sectors (education,  
law, marketing)



Tools to automate or  
assist in writing better  
prompts

# Conclusion & Final Thoughts

- AI and Prompt Engineering are transforming how we work and interact with technology.
- As AI advances, prompt engineering will become a key skill.
- Encouragement to explore, learn, and stay updated on developments.