# 50 GenAI and LLMs Interview Questions

Tech with Sha Tamil

# Language Models

1. What is a language model?
2. How does a language model work?
3. What are tokens?
4. What is tokenization in NLP?
5. What is RNN?
6. What are transformers?
7. How do RNNs differ from transformer-based models?
8. Explain how language models can be fine-tuned for specific domains or tasks.
9. Describe the architecture of a transformer-based model like GPT.
10. What is an attention mechanism?
11. How does the attention mechanism work in transformer models?
12. What is transfer learning?

# Text Processing

13.    What is the difference between stemming and lemmatization?

14.    What is encoding, decoding in LM?

15.    What is meant by chunking?

# Generative AI

16. What is generative AI?
17. How can generative AI be utilized in creating synthetic data for training purposes?
18. What are the limitations of generative models?
19. What is prompt engineering?
20. How to design prompts for controlling the output of text?
21. What are the different parameters that can be used to control the output of LLMs?
22. What are hallucinations in LLMs
23. How to reduce hallucinations in LLMs?
24. What is iterative prompting?

# Generative AI

25. Explain the generative AI project life cycle.

26. What is one-shot learning?

27. What is few-shot learning?

28. What is a context window?

29. What is temperature in gen AI?

30. What is top P?

31. What is top N?

32. What is instruction fine-tuning?

33. What is catastrophic forgetting?

34. How to avoid catastrophic forgetting?

# Fine-tuning and Evaluation:

35. How to fine-tune LLMs?

36. How is the performance of a fine-tuned LLM measured?

37. What is Parameter Efficient Fine Tuning (PEET)?

38. What is RLHF?

39. How does RLHF work?

40. What is Proximal Policy Optimization?

41. How do you evaluate the performance of a text-based LM? What metrics can be used?

# Langchain

42.   What is RAG?

43.   What is Langchain

44.   Why Langchain is used?

45.   What are agents in Langchain?

46.   What is mean by Similarity Search?

47.   What does indexing mean?

48.   Describe Hyde.

49.   What are embeddings?

50.   What is reranking?