How are you doing? Where are you from? How you data science journey started?

Can you introduce yourself?

How many data science projects have you built?

PYTHON

- How to define constants in python?
- Difference between break, continue, and pass in Python?
- What Types of Python Data Structure are you aware of?
- How to define arrays in python?
- What is the difference between lambda function and default user defined function?
- What are Iterator, Decorators and Generators in Python?
- What is .loc and .iloc in pandas?
- How to perform joins in pandas?
- Does Python support multiple inheritance?

AI Prompts

- How do you define the prompt and test it? How will you measure the accuracy of what LLM returns?
- Can you create a unit testing prompt?
- Can you define prompt for Data Analytics
- Define Prompt for Query Generation

LLM

- What is a token in the Large Language Models context?
- What are the encoders and decoders?
- What is fine tuning exactly? How to do that? Is there any specific format required to finetune the model?
- What is embedding in LLM? How do machines understand the contextual/ semantic meaning of text using embedding?
- how to retain the context of previous questions in LLM?
- Can you explain BERT Architecture ? What is transformer ?
- What are the difference between multiple LLM's?
- What is Temperature in LLM?

GPT/Bert/Open AI

- Difference between BERT and GPT model?
- How to finetune the BERT?
- Explain BERT Architecture?
- What is a Transformer in BERT?

NLP

- What kind of NLP libraries have you used?
- What is NLP according to you?
- What is stemming and lemmatization
- What is POS tagging and NER?
- Spacy vs NLTK?

- What is tokenization? Why do we tokenize?
- What is Encoding in NLP? What types of Encoding do you know?
- What is Encoding, World Embedding, Sentence Embedding and Transformer based Embedding in NLP?
- Can you explain how count vectorizer helps in machine learning?
- What is topic modeling? LDA?

MACHINE LEARNING

- What is gradient descent, explain in simple terms?
- What is regression? What is the regression equation? What is M/bo? And what is slope?
- What are the Regression assumptions?
- Why there are multiple regression evaluation matrices? Like MSE, MAE, RMSE, MAPE(mean absolute percentage error)
- If your data is not normally distributed then what will you do? Why?
- What is Regularization & Standardization
- What is R squared and adjusted R square?
- What is type 1 and type 2 erros
- Best way to measure the accuracy of the model? Precision, recall, F1 score, accuracy score
- Explain AOC and ROC curve in simple term?
- How to overcome underfitting and overfitting problems?
- Can we use logistic regression for a multiple linear regression problem?
- How SVM/Decision tree/Random forest is used to solve linear regression problem? All these are mostly used for classification problems

Deep Learning

- What is a tensor?
- What is the activation function? What is the role of activation function? What exactly are they?
- What are neurons?

COMM SKILLS