

DESIGN FOR AI

Interview Guide

SCOPE

- If a project is being proposed by a Business/ Client, are there any pre-checks before taking up the project? (if yes, what are they?)
- To decide whether ML/DL is the solution to a particular problem, what are the factors to be considered?

DATA QUALITY

Existing data sources

- How do you identify data sources?
- If tagged or labelled data is not readily available, what are the different strategies to acquire it?
- Are there any checks to qualify a data source to be used for training purposes? (if yes, what are they?)
- How do you identify which attributes from the acquired data can lead to accurate predictions? (Apart from statistical techniques)
- How do you determine the right sampling method? What are the decisive factors?
- (If stratified sampling is used) How are the properties selected to divide into strata?
- Are there any process in place to ensure that biases are not being introduced because of the training set being used? (or for diversification of data)
- Are there any manual tasks in the process of collecting, filtering and labelling data? (If yes what are they?)
- What are the major challenges with respect to data that you have observed in your previous projects?
- If the available data is not enough for reaching acceptable quality of predictions, what are the strategies to proceed?

Real-time data / User generated data

- How is working with real-time data or user generated data different from historical datasets?
- For ML systems depending on Real Time data, how is the initial training set acquired?
- Are there any challenges involved with using user generated data? (If yes, what are they?)
- Can we expect quality data being generated from users end in case of a freshly deployed/ immature ML application?
- What are the strategies used to filter user generated data?

- Are there any processes in place to ensure that biases are not being introduced from user inputs?

USER EXPERIENCE

New User

- Are users concerned in anyway to switch to an ML based system from a traditional application/ service?
- Do you get any feedback from users/ clients on deployed products? What are the most common concerns?
- Were any of your previous clients/ stakeholders reluctant to accept AI/ML as a solution? (If yes why?)
- How do you communicate the capabilities of the system to a new user?
- Have clients/ users expressed the need to know how a prediction/output was arrived upon?
- Do you think communicating this is important?
- Are there any incidents where a human expert could have done a better job in comparison to an ML application?
- Are there incidents where outcomes of an AI system has to be verified by a human user? (If yes why?)

Error Handling

- If a user is not getting the required outcome from the system, what would you suggest him/her to do? (Is this communicated to the user?)
- Can users always expect consistent outcomes/ accurate predictions from the system? (If yes, are the users confident about this? Else, How is this communicated to the user?)
- Have user dropped off due to inaccurate predictions or errors in the early stages of deployment?
- Do you think that it is important for users to know why a prediction failed?

Conversational interfaces

- How do you communicate to users what can be asked of the bot and what cannot be?
- Are there any mechanisms to capture user inputs and use it to improve the bot? Is it done in real-time or intervals?
- To train a bot initially, how do you collect a set with sufficient variations in utterances?
- Are the different utterances manually written by the clients or collected from actual users?
- Which is the best example of a chatbot that you have come across? How is it different from your application and why?
- (Can a percentage be assigned for) how often a user is able to get the required outcome in the shortest possible conversation?

- What are the major concerns from clients in interacting with the bot?