

EE P 596

ML Interviewing Master Class | DAY 3

Introduction | ML Interviewing Depth



Dr. Karthik Mohan, May 3rd 2025 | Spring Quarter course | PMP, ECE, UW

Last Class | Coding

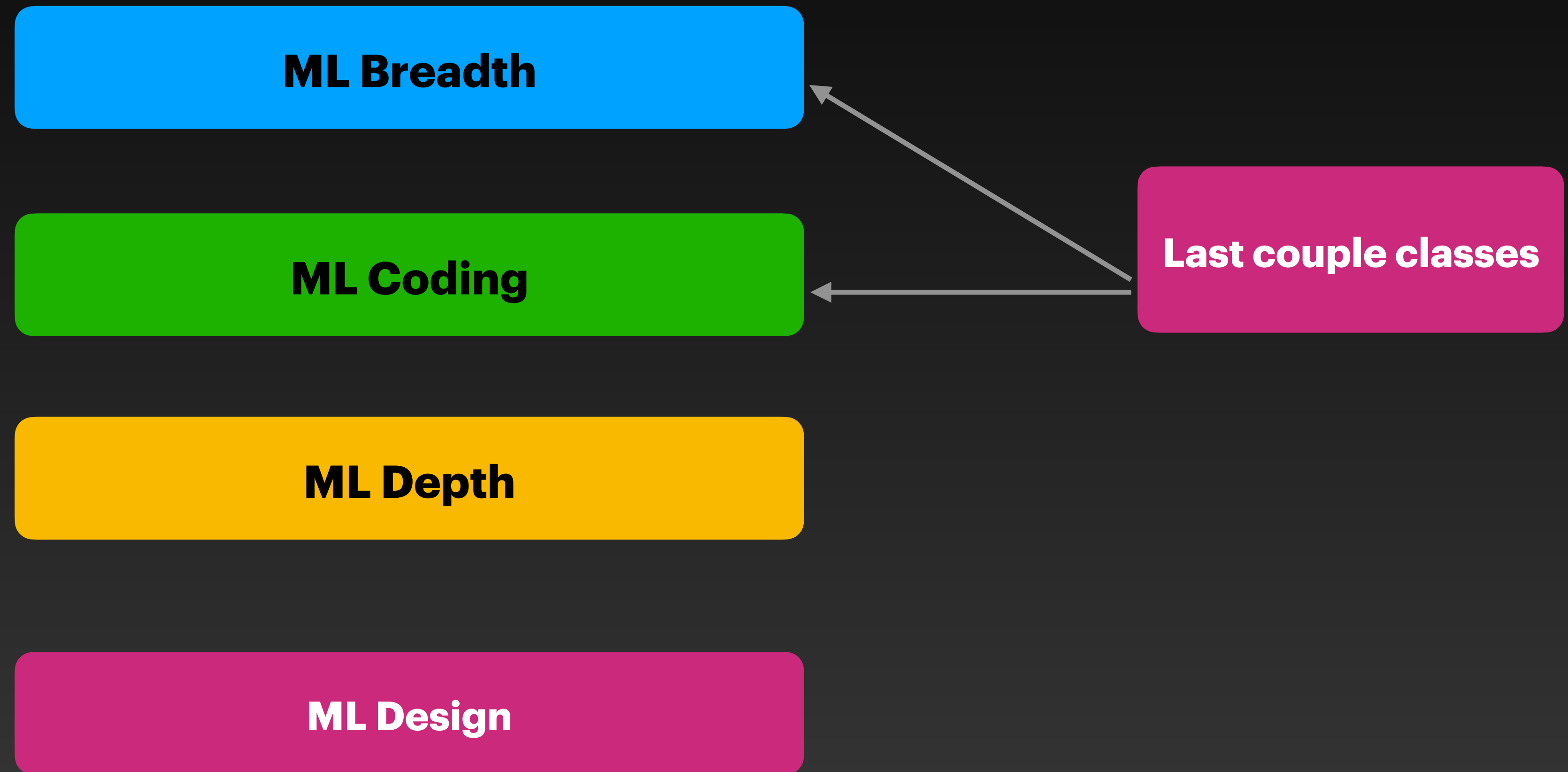
We looked at LeetCode, 9 step formula for solving a coding problem in an interview, mock interviews, ML Coding and Design of a class

Last Class | Coding

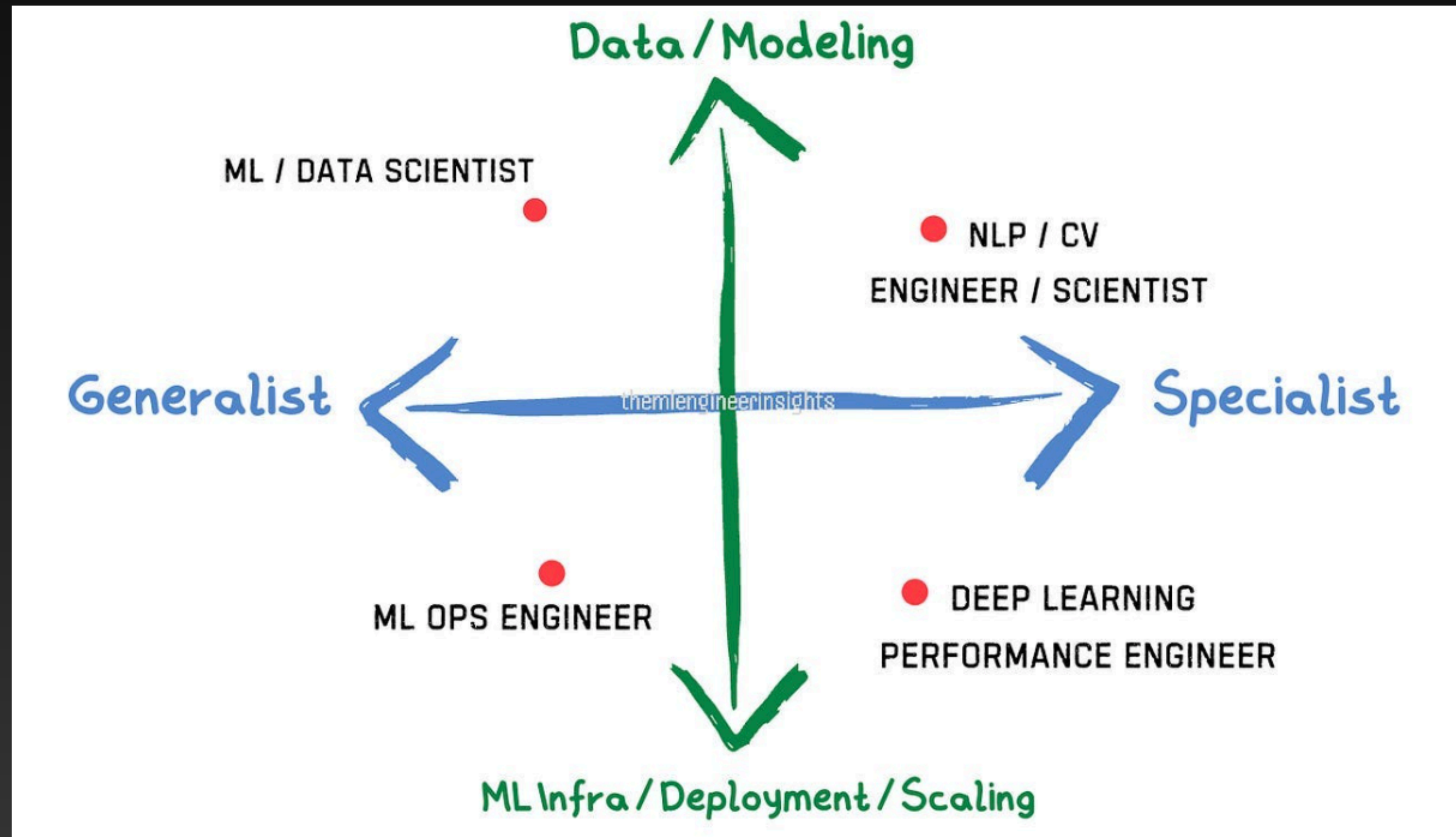
We looked at LeetCode, 9 step formula for solving a coding problem in an interview, mock interviews, ML Coding and Design of a class

Question: With the advent of Github Copilot and other LLM based coding tools, there is an increased proliferation of AI to code. Why then is there still emphasis on coding fundamentals in interviews?

ML Interview Types Summary



ML Interview Types Dimensions



Reference: <https://towardsdatascience.com/strategizing-your-preparation-for-machine-learning-interviews-876b139f9740/>

ML Interview Types Summary

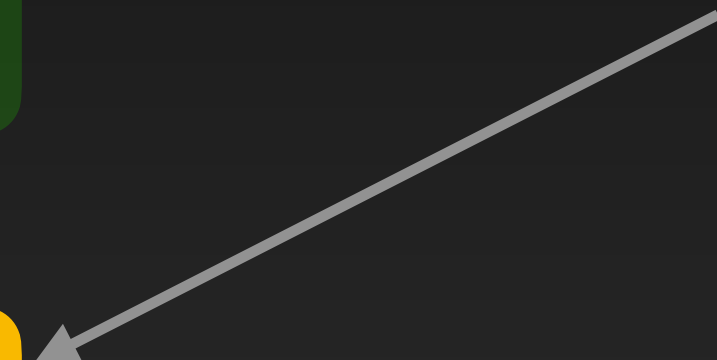
ML Breadth

ML Coding

ML Depth

ML Design

Today's Focus



Today's Class

Finish up Behavioral Round Mocks

ML Depth

Behavioral Interview Recap

STAR

Situation

Task

Action

Result

Behavioral Interview Recap

STAR

Situation
Task
Action
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STAR

1. **Situation:** Had to work with a fellow engineer where I had difficulty communicating ideas and actions
2. **Task:** Figure out an amicable resolution
3. **Action:** Looped in manager for a better working relationship
4. **Result:** Led to better working dynamic and more professional interactions

Behavioral Mock Interview (30 minutes)

1. Sit in groups of 2
2. Pick person A and person B in your group
3. Person A can set a timer for 15 minutes and ask two behavioral questions
4. Repeat the same by Person B
5. Interviewers can probe deeper with follow up questions - "Looking back, what could you have done different?", etc
6. Each "interviewer" evaluates

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Example questions

1. Tell me about a time when you had a difficult situation with a colleague and how did you handle it?
2. How did you handle a project situation that didn't go as expected
3. Tell me about a failure you have faced at work and how did you handle it?

Behavioral Mock Interview (30 minutes)

Evaluate for clarity, good examples that fit the question, how they navigated a situation, clear communication and body language (scale of 1-5)

1. Sit in groups of 2
2. Pick person A and person B in your group
3. Person A can set a timer for 15 minutes and ask two behavioral questions
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5. Interviewers can probe deeper with 4-5 follow up questions - "Looking back, what could you have done different?", etc
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Example questions

1. Tell me about a time when you had a difficult situation with a colleague and how did you handle it?
2. How did you handle a project situation that didn't go as expected
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Behavioral Mock Interview Learnings

ML Depth

ML Depth interviews assess your expertise and understanding on specific topics in AI/ML

These topics could be a ML project on the resume

They could also be a specific topic such as Deep Learning Models or LLMs

This interview is also a close cousin of ML Design Interview

ML Depth

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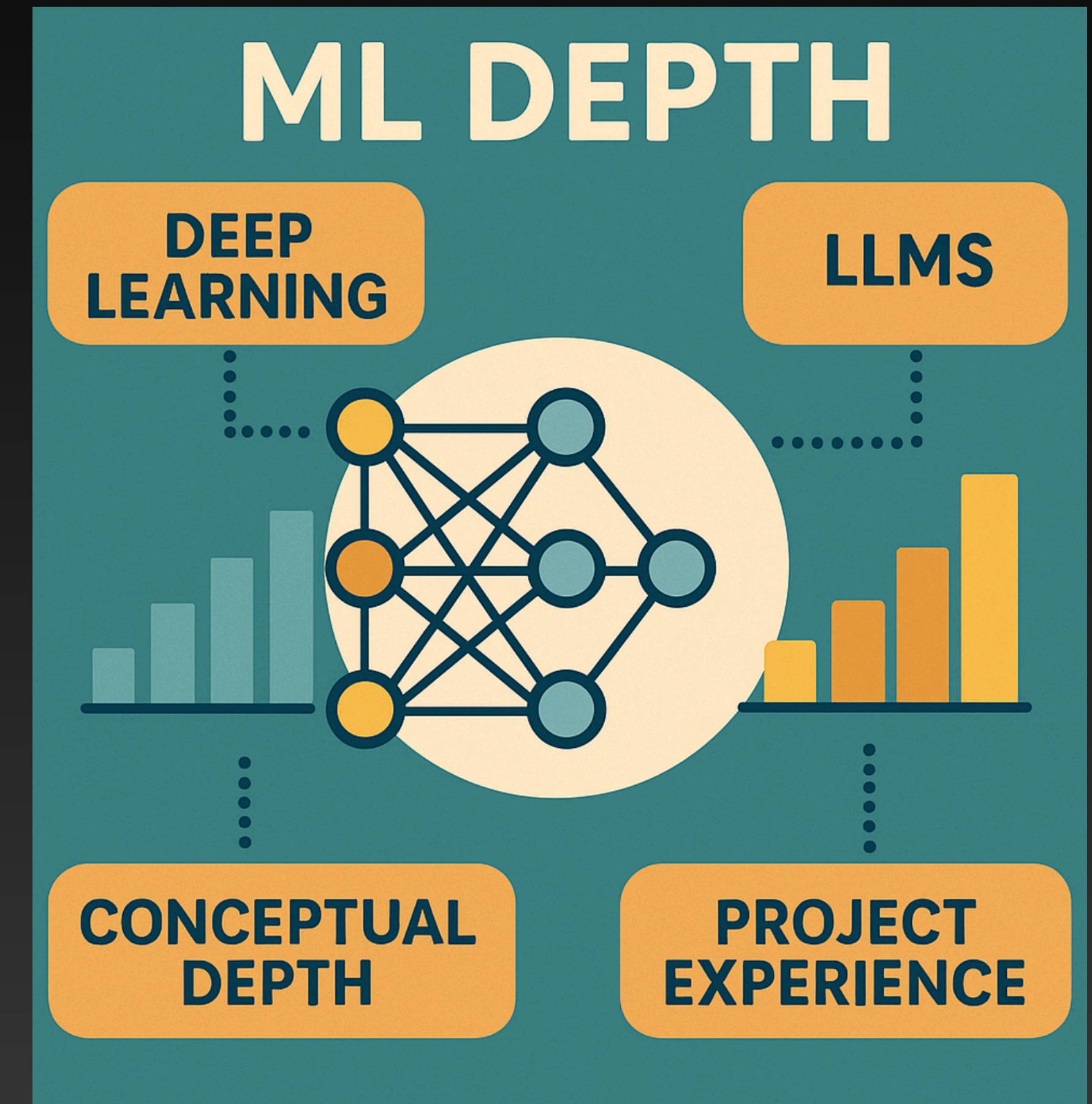
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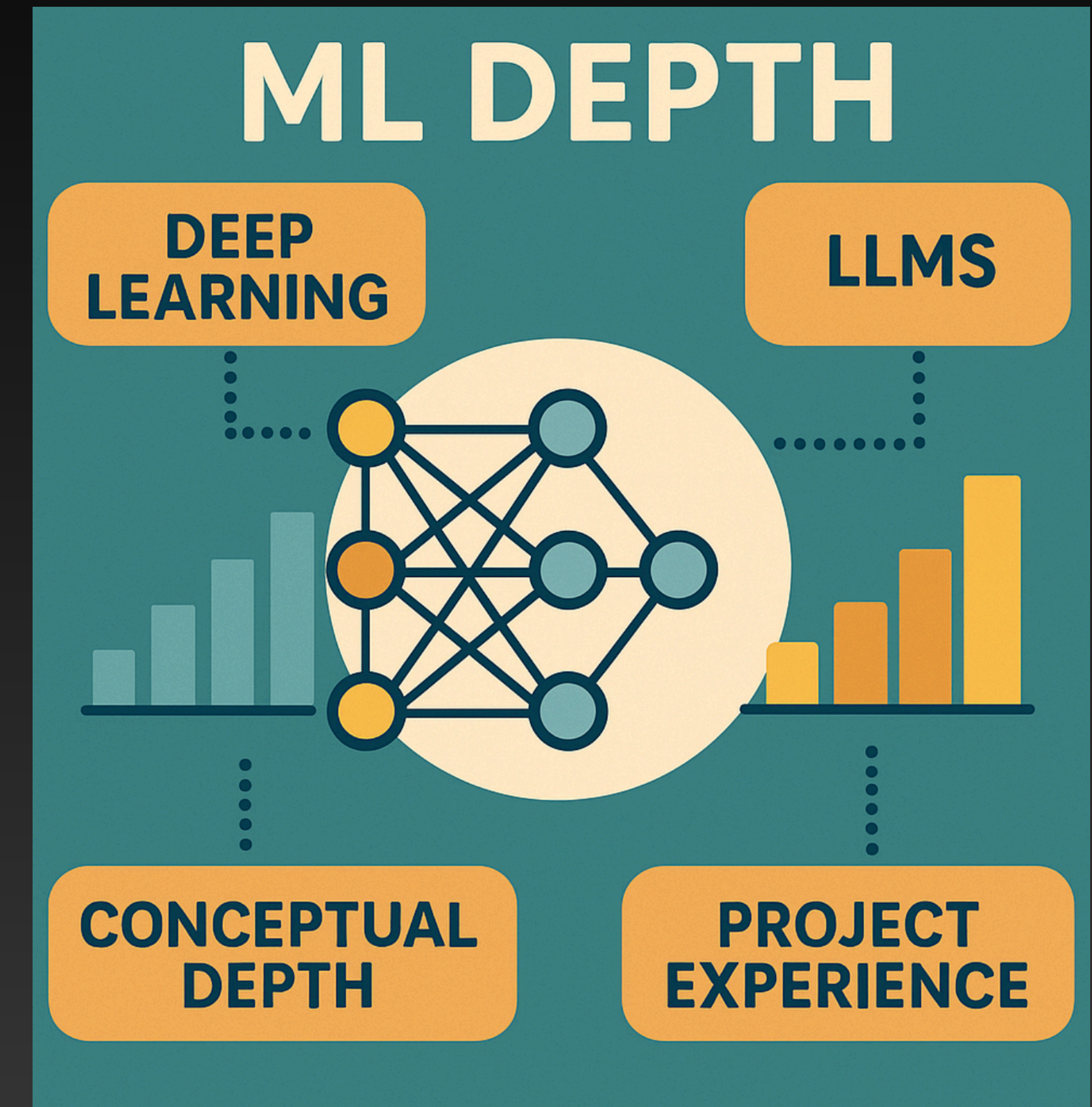
ML Depth

Assesses which areas of ML/AI do you have a “deep” understanding of. This could be a project from your resume. It could also be specific topics that you have indicated you have proficiency on.



Live Interview!

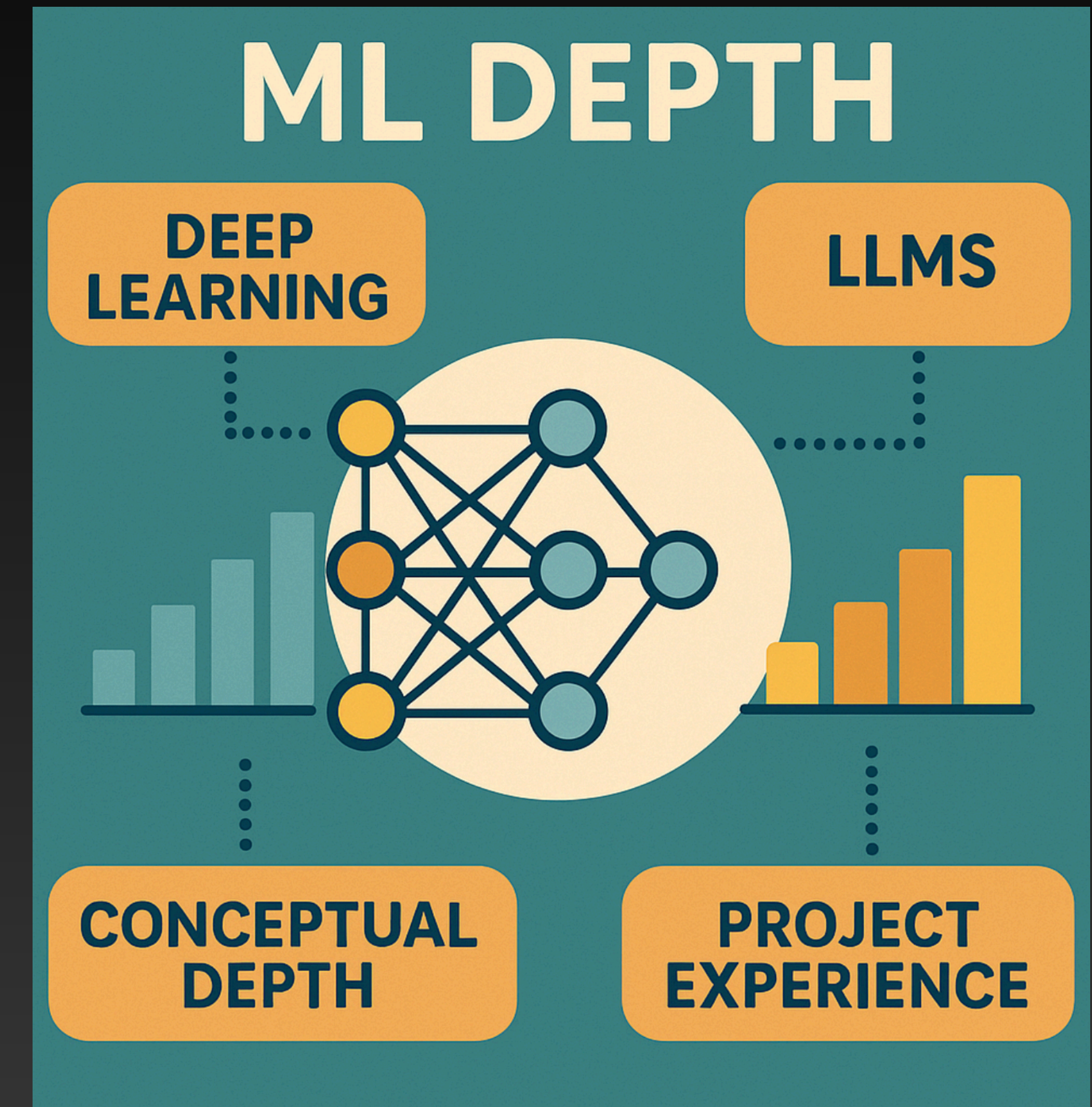
Raise your hand on topic for a 5 minute friendly “ML Interview demonstration”. You can pick one of the 5 topics: **LLMs**, **Anomaly Detection**, **Recommender Systems**, **Designing ChatBots**



Live Interview!

Good way to put yourself out there and get feedback!

Raise your hand on topic for a 5 minute friendly “ML Interview demonstration”. You can pick one of the 5 topics: **LLMs, **Anomaly Detection**, **Recommender Systems**, **Designing ChatBots****



ML Depth | Deep Learning

- **Tell me about your experience in Deep Learning**
- **What's a project you used deep learning for?**
- **Why was deep learning important in this scenario? Could you have used something else?**
- **So, what's a common way to avoid overfitting in DL. Have you encountered a scenario like this?**
- **Looking back, could you have done it differently?**
- **Btw, what activation function was used in your DL model in the intermediate layers?**
- **<More follow up questions...>**

ML Depth | Deep Learning | Mock Interview

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- **Looking back, could you have done it differently?**
- **Tell me about your DL Arch - Did it have a name? How many layers and how many neurons per layer? Activation functions? Tell me all the details**

ML Depth | Deep Learning | Mock Interview

LETS GO!

- a) Take 5 minutes to prep for question**
- b) Interviewer A asks Person B.**
- c) Keep time. 10 minutes per person.**

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- **What's a project you used deep learning for?**
- **Why was deep learning important in this scenario? Could you have used something else?**
- **So, what's a common way to avoid overfitting in DL. Have you encountered a scenario like this?**
- **Looking back, could you have done it differently?**
- **Tell me about your DL Architecture - Did it have a name? How many layers and how many neurons per layer? Activation functions? Tell me all the details**

Take Home Assignment

Part 3:
Finish the
in-class
coding
exercise on
k-means
and submit

Part 1: Solve 1 easy problem and 1 medium problem from LeetCode on each of the following topics:
Two pointers, string, hash_maps, tree, recursion
and document your solutions through the template spreadsheet. Submit your spreadsheet on canvas along with code solution

Part 2: Also add the running average and running standard deviation problem to the spreadsheet and submit code for the same

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Experience Nugget:
When you are in the flow and have practiced enough - You can easily do part 1,2 and 3 of this in 3 hours!

Practice makes perfect