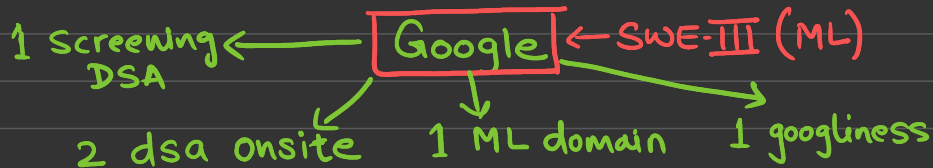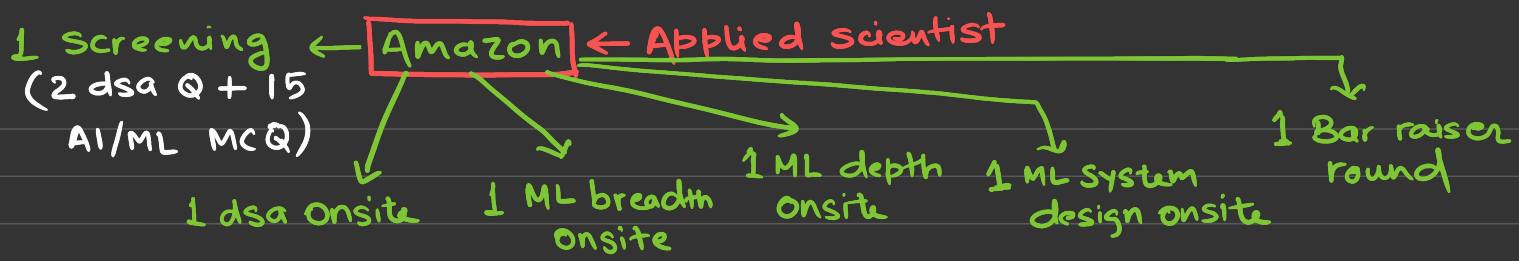DECODE

AI

AI Interview Patterns

* AI is evolving very fast. So is the roles and responsibilities

* AI jobs roles are known by different names
    → ML Engineer
    → Software Engineer (AI/ML)
    → AI Engineer
    → Applied Scientist
    → Data and Applied Scientist
    → Research Scientists
    → AI orchestration Engineer
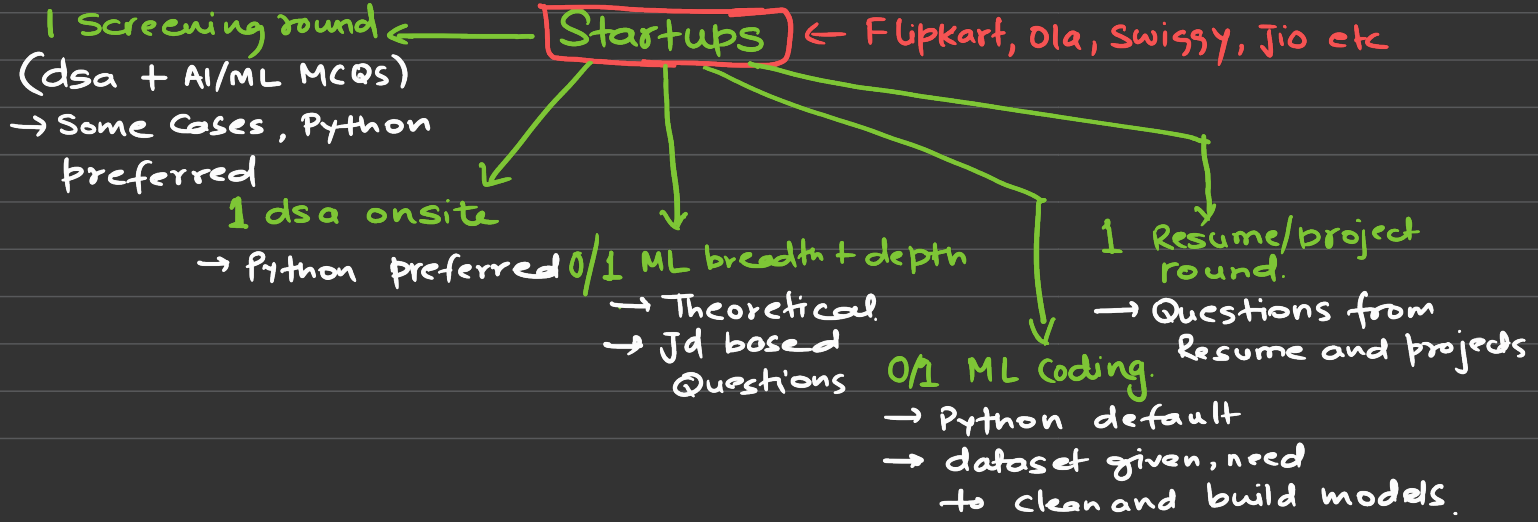   → NLP Engineer
    → LLM Engineer

* Even the interview process varies from Company to Company.

1 Screening ← ┌─────────┐ ← SWE-III (ML)
   DSA   │ Google │
              └─────────┘

2 dsa onsite   1 ML domain   1 googliness

1 Screening ← **Amazon** ← Applied scientist
(2 dsa Q + 15
AI/ML MCQ)

1 dsa onsite   1 ML breadth   1 ML depth   1 ML System   1 Bar raiser
                 onsite   onsite   design onsite   round

→ No ML Coding for both google and Amazon

→ You can code DSA in any programming languages
                              ↳ C++, Java, Python etc

1 Screening round ← Startups ← Flipkart, Ola, Swiggy, Jio etc
(dsa + AI/ML MCQs)
→ Some cases, Python
  preferred

        1 dsa onsite
        → Python preferred   0/1 ML breadth + depth   1 Resume/project
                                → Theoretical   round.
                                → Jd based   → Questions from
                                  Questions   0/1 ML Coding.   Resume and projects
                                               → Python default
                                               → dataset given, need
                                                 to clean and build models.

* If so, how to prepare and crack these roles??

   ↳ I observed some common **patterns** in all these interviews after interviewing for multiple companies. This is what I want to share with you.

☆ Let's decode the Patterns!!

Decoding AI Interview Patterns

① Screening Round
  → dsa coding Questions (level easier to SDE Interviews)
  → AI/ML MCQ Questions
      ↳ AI/ML Common Fundamental Concepts
      ↳ Some question on JD topics
      ↳ Some Questions based on hiring team requirement
        and nature of business of Company.

② DSA coding round
  → easy + medium coding Questions
      ↳ Leetcode is more than enough.
  → Smart folks will code in Python.

③ ML coding round
  → Some dataset given.
      ↳ preprocess the data, EDA, scaling, visualization
          ↳ Use Pandas
      ↳ Apply basic Classification/Regression algorithm
          ↳ Use Sklean

→ In some top PBC, implement some loss function, Evaluation metrics, basic MLP implementation, basic text processing and document representation, basic linear and logistic regression implementation, gradient descent etc

↳ No library allowed. Code in Python and may use Numpy.

④ ML Breadth round

→ Theoretical Questions asked can cover a variety of topics
→ Maths, ML, DL Fundamentals
→ Some advanced concepts based on business problems they solve. Focus on JD

⑤ ML Depth round

→ Focus on projects mentioned in Resume (AI Projects)
→ They will dig deep with why, how?

⑥ ML System design round

→ In most cases, Hiring Manager takes this round
→ Most important round. Checks your expertise in
  ↳ Picking the best algorithm.
  ↳ design a Scalable ML System
  ↳ Creating end to end AI/ML pipeline.
→ Given a vague problem to solve.
  ↳ ex:- design a recommendation engine for youtube/
       Amazon/Twitter/fb etc.
  ↳ ex:- design a image classification engine. Say for
       500 classes.
→ Not a part of entry level roles but some startups may
  ask

⑦ Behavioural Round.

→ Also called leadership round.
→ Scenario based questions asked.
→ Common in top PBC → Bar raiser round (Amazon)
                    ↓
          Googliness round (Google)