Skellam AI Interview Experiences

# **Slot: Sequential**

# **Procedure**

1. Online test
2. Interview: 2 technical+1 hr round + project discussion

---------------------------------------------------------------------------------------------------------------

# Deyyala Sai Venkat

Personal view: Easy ( cover classical ml, transformers)

Status: Selected

Round1: Technical (1 hr) - Easy

* Classical ML
  + Bias- variance tradeoff
  + Overfitting
    - What are methods to overcome(data augumentation, reduce model complexity, dropout and so on)
  + How do you model fraud detection data( its just an classification task, concentrate more on metrics like recall, precision and f1 score)
    - Here Recall is more important ( explain why)
  + Boosting and Bagging
* Python
  + Create a list of 350 numbers(list compreshion)
  + Randomly choose an index and delete the number in the list
  + Write a function to find what was the number you deleted

Round2: CEO- Technical(30 minutes)

* Asked about what Courses i had taken
* Bias-variance tradeoff
  + Why underfitting and overfitting
    - How to overcome those?
* Explain transformer architecture to a classical ML known guy
* How to improve model without changing with variance ( Data augumentation)
* DO you know naive bayes

**Gave me an research paper to study (round 4)**

Round 3: HR (15 minutes)

* Introduce yourself
* Why did you have a transition from biotech to data science?
* Where do you see yourself in next 5 years?
* Why only this company not any others?(check JD and answer accordingly)
* Most of projects oriented towards medical field applications. So why cant you go for other jobs( I want to use my skills to create solutions that positively impact society
* How do you handle stress and workload?
* Mention 3 personality traits ( leadership, punctuality, good listener)

Round 4: project discussion

I was given the research paper titled **“Gibbs Sampling for the Uninitiated”** and two hours to review it. After the review period, I was asked to provide an overview.

When asked, **"What is sampling?"**, I began by summarizing the paper, explaining that it focuses on classifying documents into **label 0 or label 1** using **MCMC methods**, particularly Gibbs Sampling. I outlined how Gibbs Sampling works by iteratively sampling from conditional distributions and highlighted its role in simplifying the classification process.

I discussed relevant mathematical concepts, such as the **Dirichlet, Multinomial, and Bernoulli distributions**, and their use as **conjugate priors** to simplify calculations. As I explained the Gibbs Sampling process, I addressed related terms like **MLE, MAP, random sampling, probability distributions, and PDFs**, providing context where necessary.

After about 10 minutes, the CEO acknowledged that I had a good understanding of the paper and noted that the depth of my explanation seemed beyond what could typically be covered in two hours.