Okay, I've carefully reviewed the Job Description (which is just "This is a JD," so I'll have to rely heavily on the resume for inferring the role) and the provided resume of Anon Hossain. Based on the resume, Anon is applying for a Data Analyst/Data Scientist type role. The resume highlights experience with data analysis, machine learning, Power BI, SQL, and teamwork.

Here are 10-15 technical and advanced questions tailored to Anon's resume and skills:

\*\*Technical & Advanced Questions:\*\*

1. \*\*Credit Card Analysis & Revenue Increase:\*\* You mentioned achieving a 28.8% revenue increase through Power BI dashboards and SQL integration. Can you walk me through the specific steps you took in analyzing the credit card data, the key insights you uncovered, and how those insights directly translated into actions that drove the revenue increase? What were the biggest challenges in this project?

2. \*\*SQL-Power BI Integration:\*\* You have experience integrating SQL with Power BI. What are some best practices for ensuring data consistency and accuracy when transferring data between these two platforms, especially when dealing with large datasets? How did you handle data transformations and cleansing within this integration?

3. \*\*Banknote Authentication Model:\*\* In your banknote authentication project, you achieved 100% accuracy. While impressive, perfect accuracy can sometimes indicate overfitting. How did you validate your model to ensure it generalizes well to unseen data? What specific techniques did you use to prevent overfitting (e.g., cross-validation, regularization)?

4. \*\*Model Selection (Banknote Project):\*\* You implemented KNN, SVC, and Perceptron classifiers. What were the specific reasons for choosing these particular algorithms? What other algorithms did you consider, and why did you ultimately decide against them? Explain the trade-offs you observed between these models in terms of accuracy, training time, and interpretability.

5. \*\*Data Splitting:\*\* You mentioned analyzing different data splitting ratios. What considerations did you take into account when determining the optimal split for your training, validation, and testing sets? How would you handle a scenario where you have highly imbalanced data (e.g., a much larger number of genuine banknotes than fake ones)?

6. \*\*Power BI Dashboard Design:\*\* What are some key considerations you take into account when designing effective and impactful Power BI dashboards for executive-level stakeholders? How do you ensure that your dashboards are not only visually appealing but also provide actionable insights? Give an example of a dashboard design choice you made to improve clarity or understanding.

7. \*\*Handling Missing Data:\*\* In real-world data analysis, you often encounter missing data. What are some common techniques for handling missing data (e.g., imputation, deletion)? What factors would you consider when deciding which technique to use, and what are the potential biases associated with each approach?

8. \*\*Friday Sale Analysis:\*\* You used Python, Excel, and Power BI to enhance sales. Can you give a specific example of how you used Python for a particular task in this project? What kind of data manipulation or statistical analysis did you perform using Python, and why was Python the right tool for that job?

9. \*\*Explainable AI (XAI):\*\* In the context of fraud detection or risk assessment, explainability is often crucial. How would you incorporate Explainable AI (XAI) techniques into your machine learning models to provide insights into the factors driving predictions?

10. \*\*A/B Testing:\*\* How familiar are you with A/B testing methodologies? If we wanted to test the impact of a new credit card offer on customer acquisition, how would you design an A/B test to ensure statistically significant and reliable results? What metrics would you track, and how would you analyze the data?

11. \*\*Scaling Machine Learning Models:\*\* Imagine the banknote authentication system needs to process millions of transactions per day. How would you approach scaling the machine learning model to handle this increased load? What infrastructure considerations would you need to take into account (e.g., cloud computing, distributed processing)?

12. \*\*Data Governance and Security:\*\* How would you ensure the security and privacy of sensitive credit card data when working with Power BI dashboards and SQL databases? What data governance practices would you implement to maintain data quality and compliance with relevant regulations (e.g., GDPR, CCPA)?

13. \*\*Beyond Accuracy:\*\* In your banknote authentication project, you optimized for accuracy. However, in some scenarios, other metrics like precision, recall, or F1-score might be more important. Can you explain these metrics and provide an example of a situation where optimizing for a specific metric would be crucial?

14. \*\*Teamwork & Collaboration:\*\* You were Head of Documentation at DaffodilMUN. Describe a time when you had to resolve a conflict between different departments while leading that documentation effort. What strategies did you use to achieve a positive outcome?

15. \*\*Real-World Limitations:\*\* If you were deploying your banknote authentication model in a real-world ATM, what practical challenges might you encounter beyond the model's performance on a clean dataset? Consider issues like image quality, lighting conditions, and variations in banknote printing. How would you address these challenges to ensure the model's robustness?

These questions are designed to assess not only Anon's technical skills but also their problem-solving abilities, critical thinking, and understanding of the real-world implications of their work. They also aim to uncover the depth of their knowledge and the extent to which they can apply their skills in complex situations.