PORTFOLIO PRESENTATION

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P-5 ANTI MONEY LAUNDERING: GLOBAL BANK

Business Challenge

Pig E Bank must strengthen its US–Mexico anti-money-laundering program using data-driven insights while respecting strict ethical and privacy standards. Beyond AML, analysts also support customer-retention efforts by designing decision trees to predict whether clients will stay or leave.

Objective

Key analytical skills include big-data concepts, ethical reasoning, data mining, predictive modeling, and time-series analysis. This involves identifying bias and privacy risks, cleaning and exploring data, extracting patterns, and addressing measurement and collection biases. Analysts also build time-series models to forecast risk trends and apply linear or logistic regression depending on the scenario to support informed risk decisions.

Decision Tree

The decision tree indicates that churn risk is highest among inactive clients with few products, low tenure, a middle-age profile (38–60), and a high account balance. Conversely, active long-tenure clients with multiple products show a significantly lower likelihood of leaving.

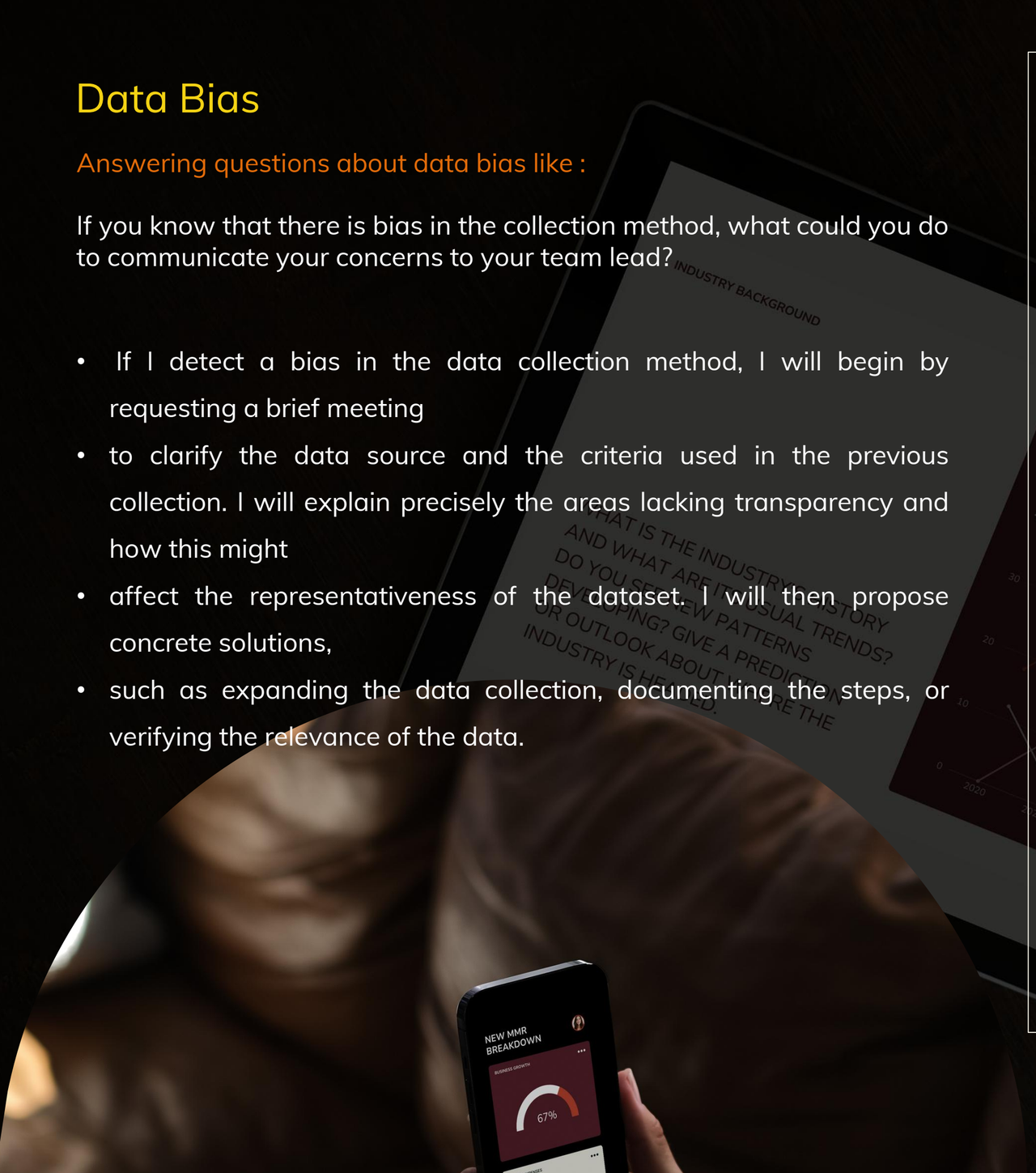
Decision Tree building a decision tree to determine the probability that a customer will remain loyal to the bank or leave

Data Bias

Answering questions about data bias like :

If you know that there is bias in the collection method, what could you do to communicate your concerns to your team lead?

- If I detect a bias in the data collection method, I will begin by requesting a brief meeting
- to clarify the data source and the criteria used in the previous collection. I will explain precisely the areas lacking transparency and how this might
- affect the representativeness of the dataset. I will then propose concrete solutions,
- such as expanding the data collection, documenting the steps, or verifying the relevance of the data.



Strengths Demonstrated

This achievement gave me a strong foundation in data ethics—proving to be just as crucial as I had imagined. It reinforced the importance of responsible data use, bias mitigation, and ethical reasoning in real-world analytical work.

What Comes Next

Alongside this, I also gained practical knowledge in data ethics applied with Python, and I would like to deepen my understanding of this topic by practicing more exercises. I also plan to explore each subsection of this project in greater depth

Moment of struggle

Presenting what I learned in YouTube wasn't easy, but thanks to the knowledge I gained, I was able to overcome several challenges during the presentation. And I'll never stop improving.

Link of my answers to other questions