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# Jessica Duong

Data Analyst

SQL | Python | Tableau | Excel  
Healthcare & Operations Analytics



# 06

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# Risk & Responsible Analytics Foundations

Applied analytics for compliance,  
forecasting, and ethical decision-  
making

# Business Context & Applications

As an analyst supporting compliance and operations at a bank, I applied different analytical methods depending on the business risk.

## Compliance (AML monitoring)

Designed bias-free alert logic  
using behavioral thresholds  
→ removed 6.8x demographic  
bias

## Planning (Forecasting)

Modeled trends and  
seasonality → enabled  
proactive staffing and  
inventory decisions

## Governance (Data Ethics)

Identified PII vulnerabilities →  
implemented privacy and  
security controls



# Business Impact

## Compliance

- Reduced discrimination and regulatory risk

## Efficiency

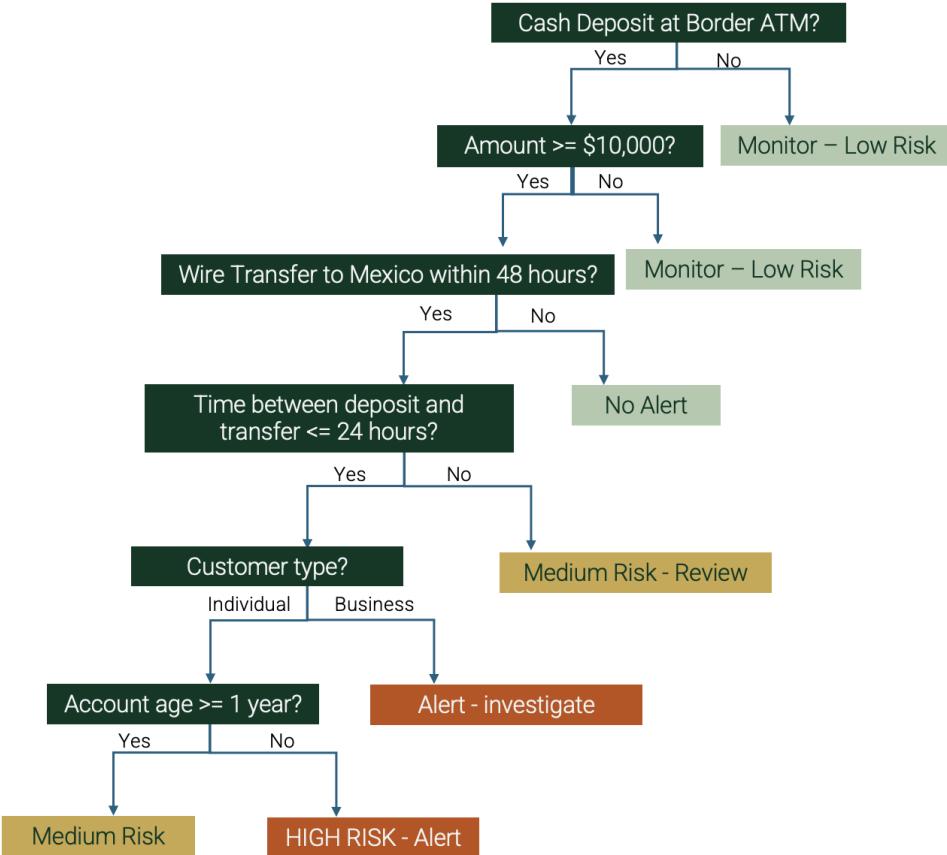
- Automated consistent decisions
- Forecast-driven planning

## Risk

- Stronger privacy and data governance controls

## Links

[GitHub Repository](#)



Behavior-based AML rules standardize alerts and eliminate demographic bias.

# Constraints, Tradeoffs & Decisions

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## Problem

- Not a single end-to-end project, but a collection of applied analyst scenarios
- Business context and stakeholders were simulated (fabricated bank environment)
- Separate datasets (AML, forecasting, pricing, ethics) with no shared schema
- No live production systems or real operational feedback loops
- Required demonstrating multiple methods rather than optimizing one solution

## Decisions & Solutions

- Focused on practical, explainable techniques suitable for regulated environments
- Used interpretable models (rules, thresholds, decision trees)
- Standardized outputs into clear business decisions and risk controls
- Structured deliverables to show breadth of capability across common banking use cases

Demonstrated versatile, production-ready analytics skills across compliance and operations scenarios, prioritizing explainability and risk control.

# THANKS!

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