
Jessica Duong

Data Analyst

SQL | Python | Tableau | Excel
Healthcare & Operations Analytics



06

Risk & Responsible Analytics Foundations

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

Excel | Statistical Modeling | Time Series
| Decision Trees | Data Ethics

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

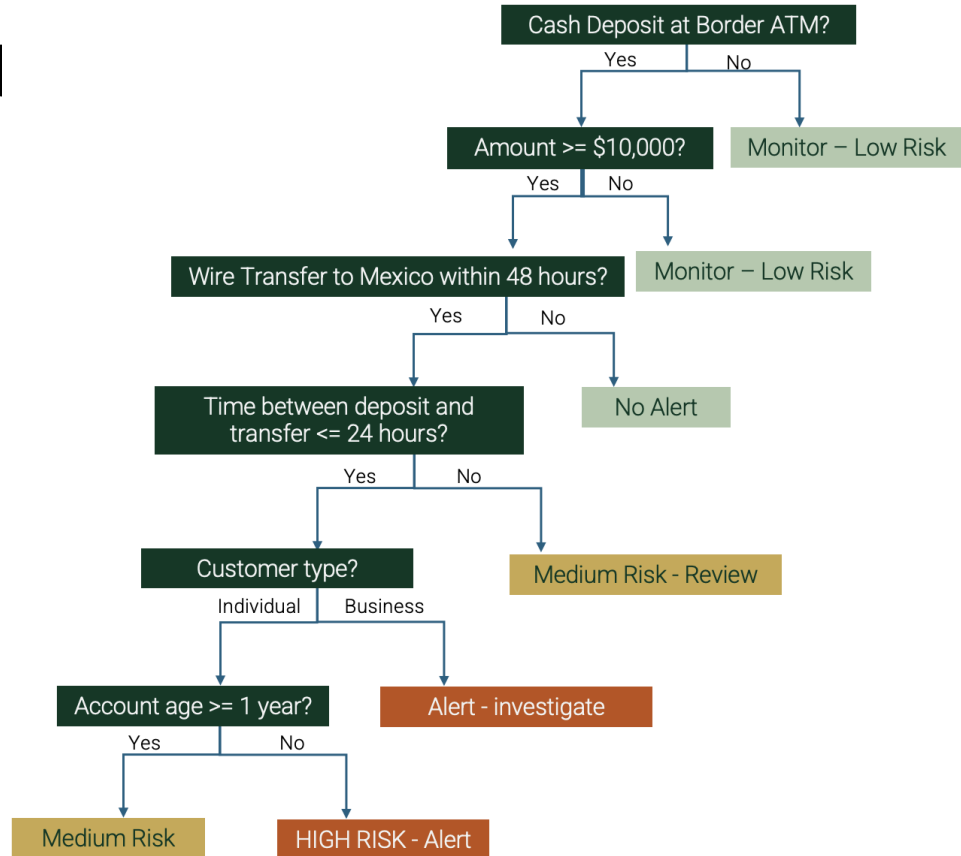
- Automated consistent decisions
- Forecast-driven planning

Risk

- Stronger privacy and data governance controls

Links

[GitHub Repository](#)



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

Constraints, Tradeoffs & Decisions

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.

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THANKS!

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