AutoML Brain – Deployment Governance Report

Retraining Reason

No immediate action required due to stable ROC-AUC and low data drift metrics.

Deployment Safety Summary

{'Model Version': 'Latest Production', 'ROC-AUC': 0.8383626224456103, 'F1 Score': 0.6337817638266069, 'Accuracy': 0.7682119205298014, 'Latency Metrics': {'Stable P95': None, 'Canary P95': None}, 'Decision': 'DEFERRED (NO TRAFFIC)'}

Risk Assessment

Data drift is minimal, indicating stability in model performance. However, lack of traffic prevents immediate deployment.

Top Reasons for Customer Churn

- **Contract:** Customers on month-to-month contracts are more likely to churn due to low switching costs and lack of long-term commitment.
- **tenure:** Customers with shorter tenure have not yet developed loyalty and are more likely to leave early.
- **OnlineSecurity:** Lack of online security increases perceived risk and dissatisfaction, leading to churn.
- **MonthlyCharges:** Higher monthly charges increase price sensitivity, especially when perceived value is low.
- **TechSupport:** Customers without technical support face unresolved issues, increasing frustration and churn.

Executive Summary

The model demonstrates satisfactory evaluation metrics, with minimal data drift. However, due to lack of traffic, the deployment decision is deferred until traffic levels are sufficient for a thorough evaluation.