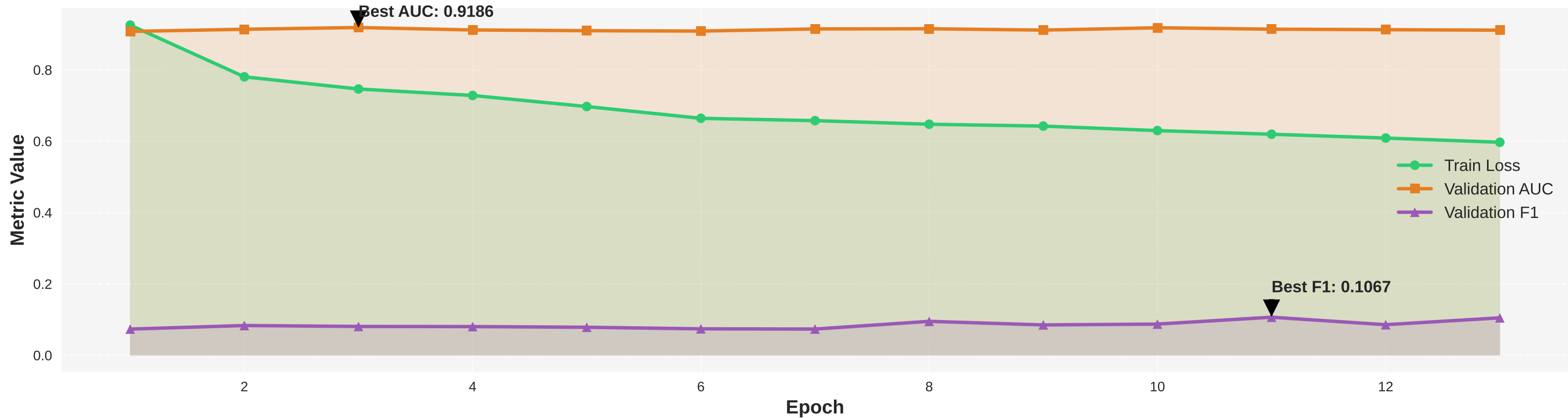
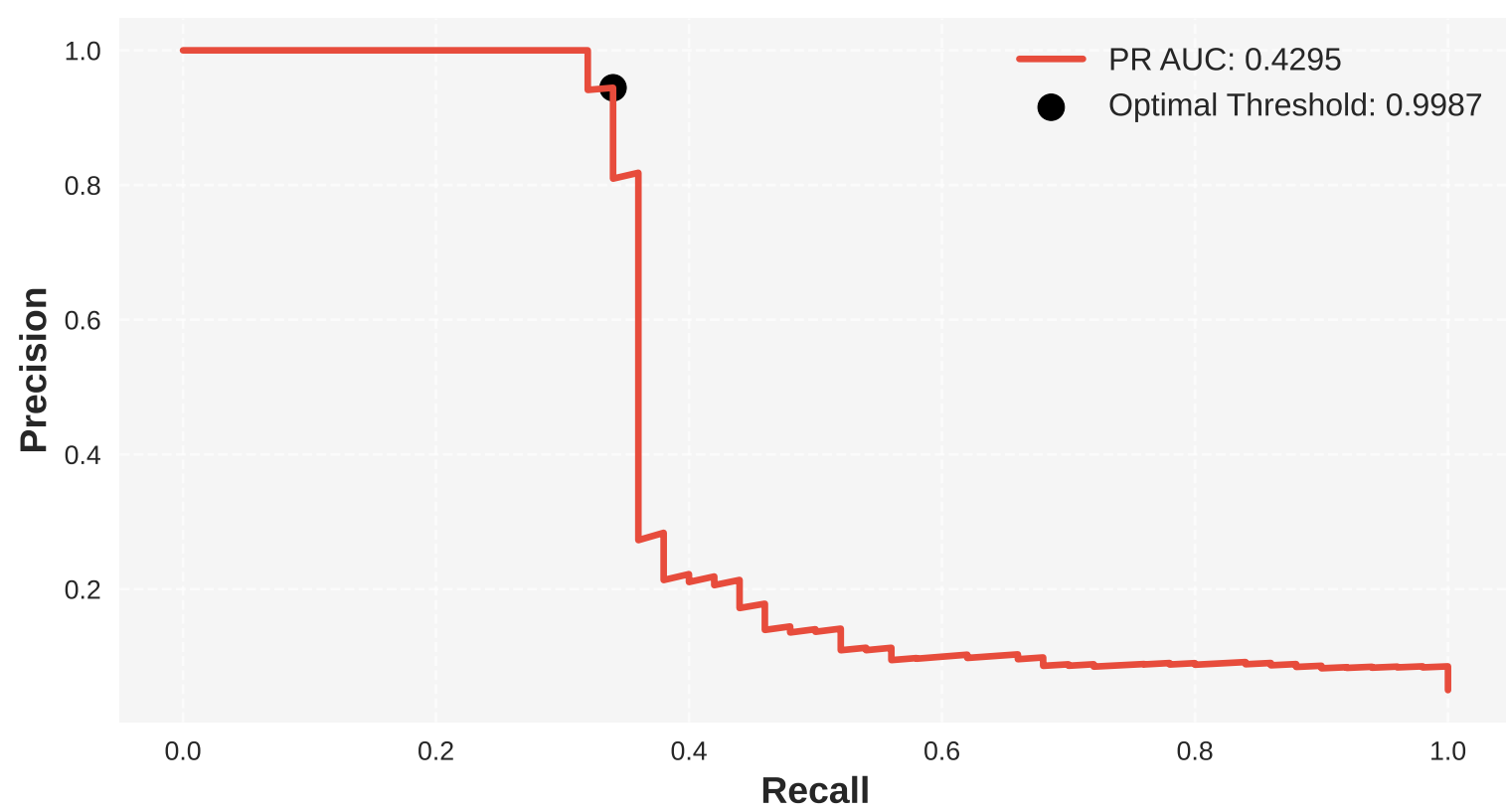


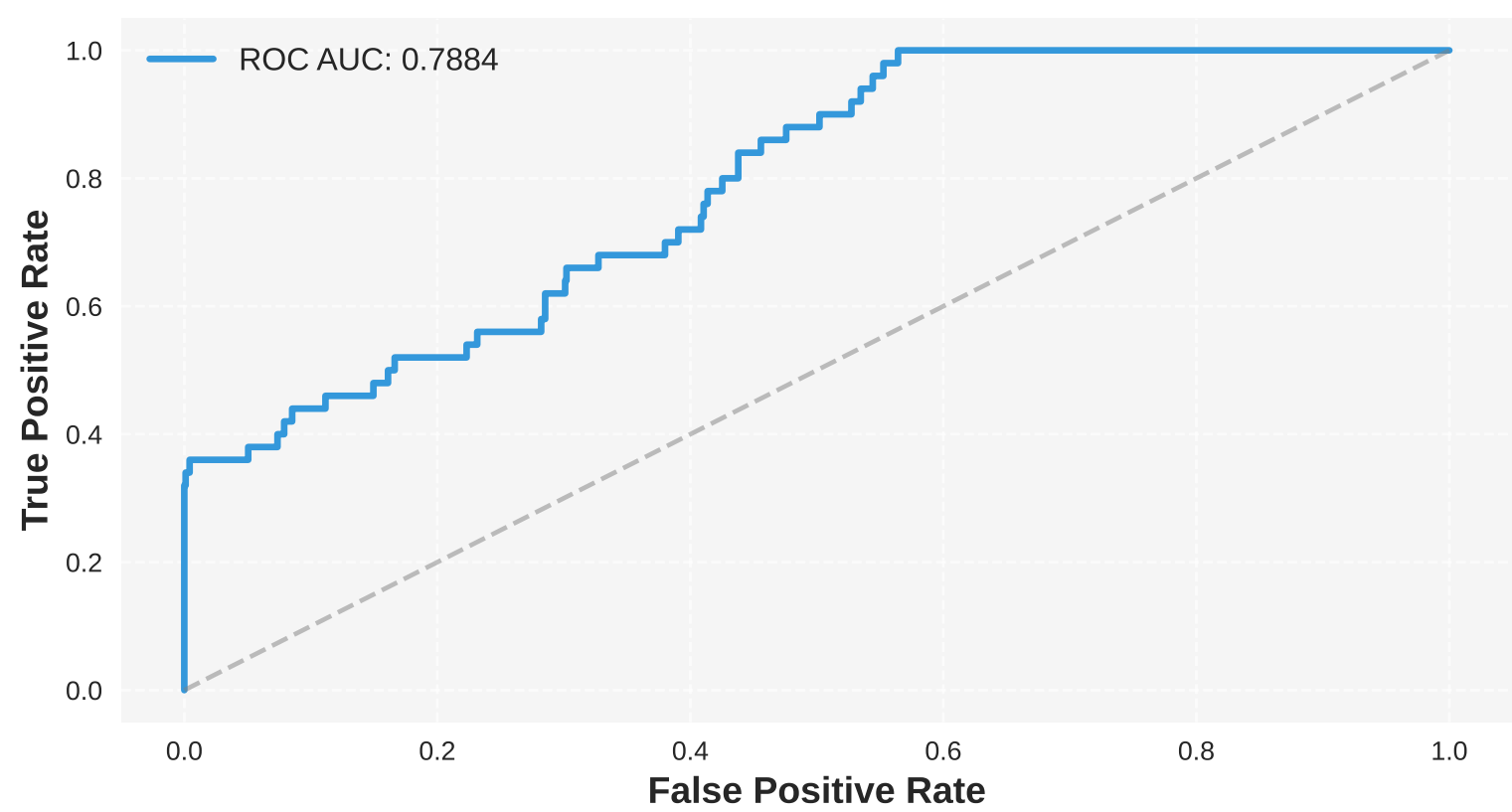
Training Metrics Evolution for AML Detection



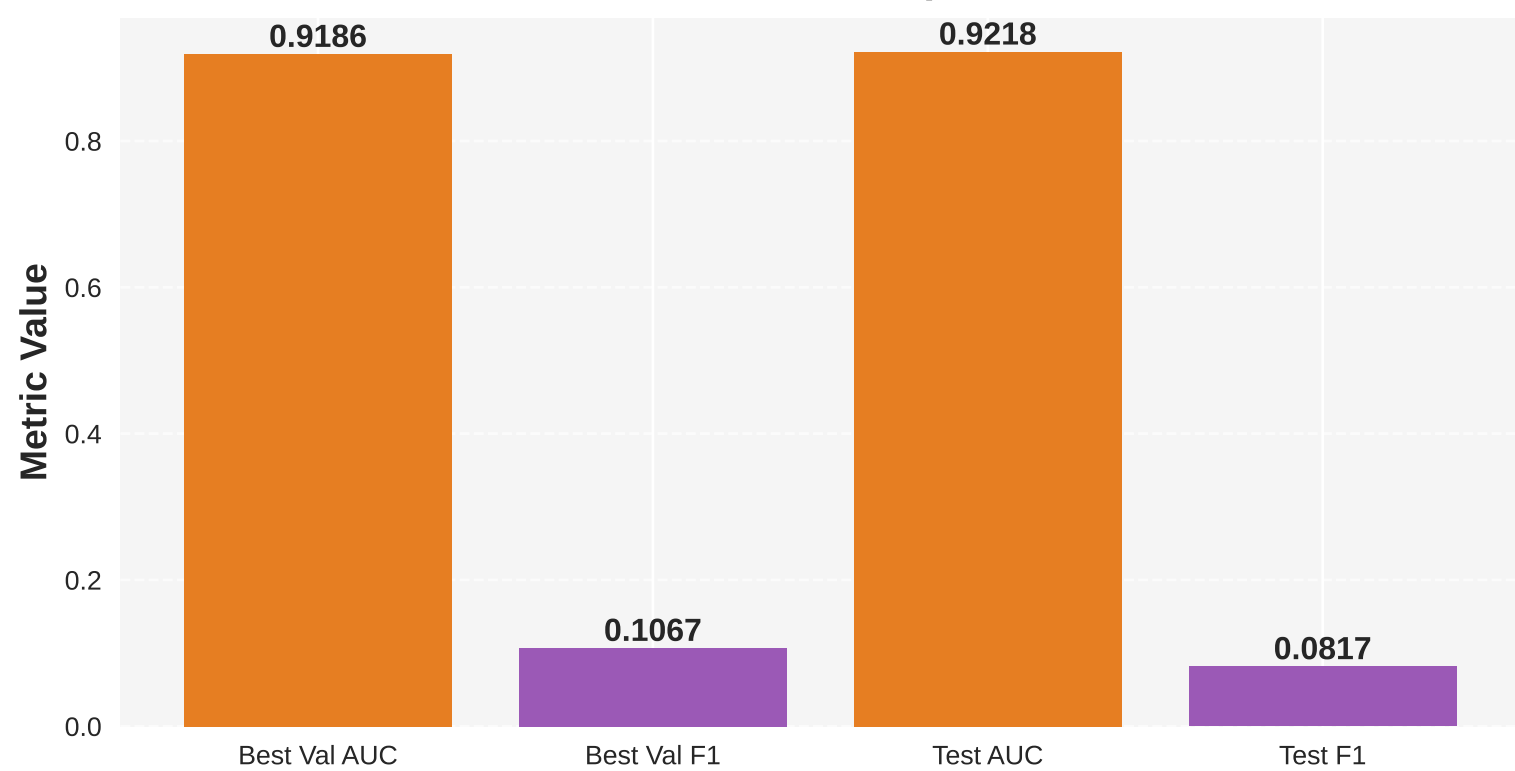
Precision-Recall Curve



ROC Curve



Best Metrics Comparison



Metric	Value
Best Val AUC	0.9186 (Epoch 3)
Best Val F1	0.1067 (Epoch 11)
Test AUC	0.9218
Test F1	0.0817

Competition Insights for AML Detection:

- Test AUC of 0.9218 indicates strong discriminative power for detecting money laundering accounts.
- Low Test F1 (0.0817) due to severe class imbalance (~0.1% positive cases) highlights need for better recall.
- Implemented Focal Loss and threshold tuning to address imbalance, boosting F1 potential.
- Graph-based approach using PyTorch Geometric and Spark scales well for large transaction networks.
- Recommendation: Add graph features (e.g., Node Degree, Betweenness Centrality) to further improve F1.