Classical and Quantum-Derived Comparison

Eight PCA features | 114 held-out cases | November 2, 2026

This table records the displayed results from the Google Colab notebook and the reconstructed comparison CSV. All listed classifiers were evaluated on the same 114 held-out examples for the eight-feature comparison. The quantum-derived feature classifier performed below all three conventional baselines on this experiment. Results do not establish quantum advantage, clinical diagnostic performance, or real-world detection capability. Values are rounded to four decimal places in the underlying notebook outputs. The accompanying CSV was reconstructed from displayed notebook results rather than downloaded from the original notebook execution.

Model	Accuracy	F1	ROC AUC
Logistic regression (8 PCA)	0.9561	0.9645	0.9944
Random forest (8 PCA)	0.9123	0.9296	0.9854
Gradient boosting (8 PCA)	0.9298	0.9444	0.9841
Quantum-derived + logistic regression	0.6667	0.7765	0.6518

Research limitations: These are exploratory public-dataset software simulations. No physical QPU was used in the reported Amazon Braket local-simulator study; no quantum advantage or clinical validation is established. No patent specifications are disclosed.