

Responsible AI Audit Report

1. Dataset Assessment

Dataset Quality Score: 80/100

Verdict: PASS

Risk Level: Low Risk

Conclusion:

Dataset is suitable for ML usage.

Recommended Actions:

- Remove duplicate rows.
- Handle outliers using capping/removal/transformations.

2. Model Performance Assessment

Performance Verdict:

Model performance is strong.

Reason:

Predictions are reasonably reliable.

Action:

Model is suitable for controlled deployment.

Key Model Metrics:

- Accuracy: 0.966
- Precision: 0.967
- Recall: 0.966
- F1 Score: 0.967

3. Fairness & Bias Assessment

Fairness Verdict:

Fairness risk detected.

Reason:

Selection rate difference is high (0.6).

Action:

Apply bias mitigation strategies (reweighting, resampling, threshold tuning).

Bias Summary (Sensitive Attribute vs Target)

- Highest bias disparity observed in group: 58
- Maximum disparity across target labels: 92.0%
- Bias Risk: High

4. Final Audit Decision

Audit Result: AUDIT PASSED

Final Recommendation:

System appears deployable with continuous monitoring.