

Cross-Validation Report for Artificial Neural Network

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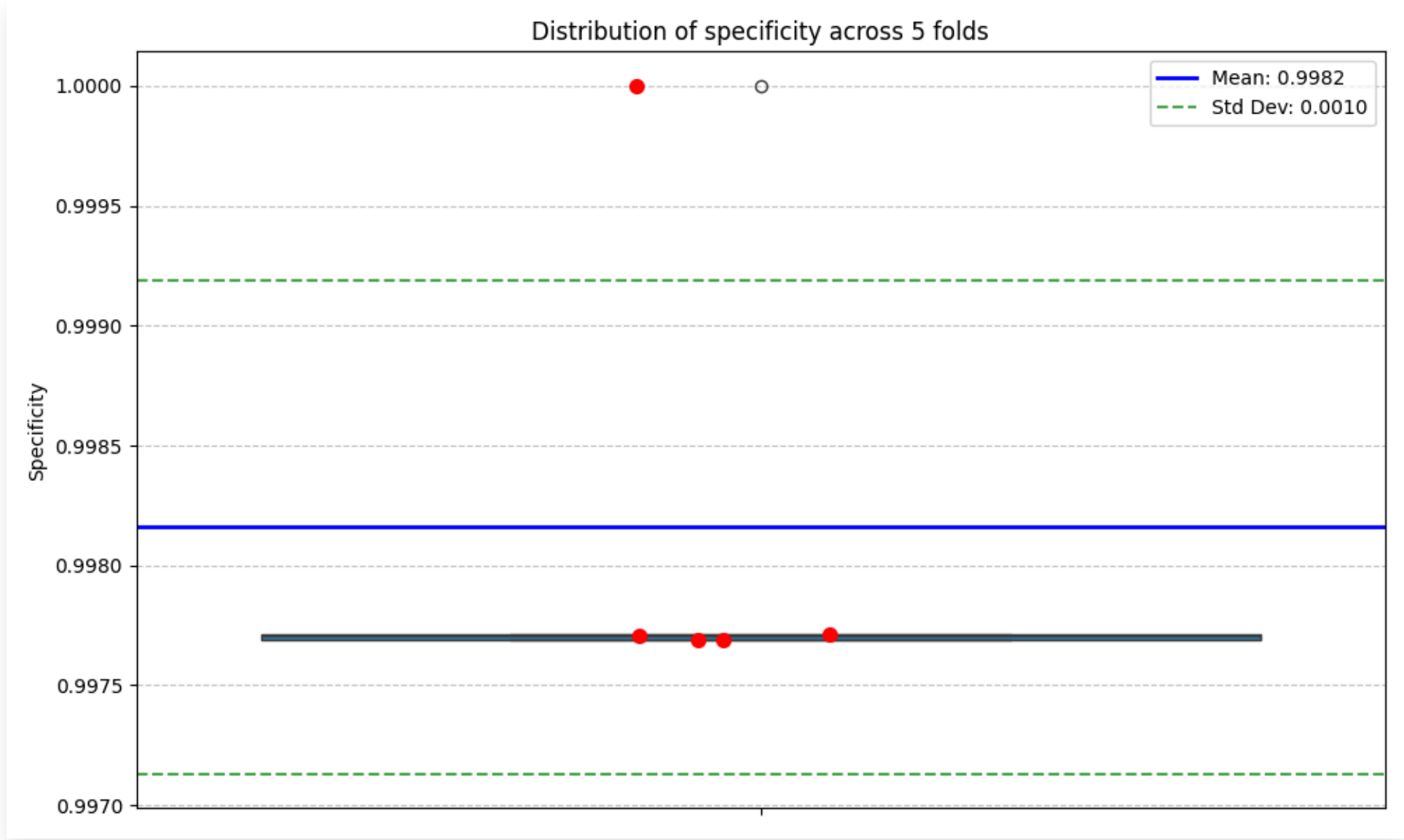
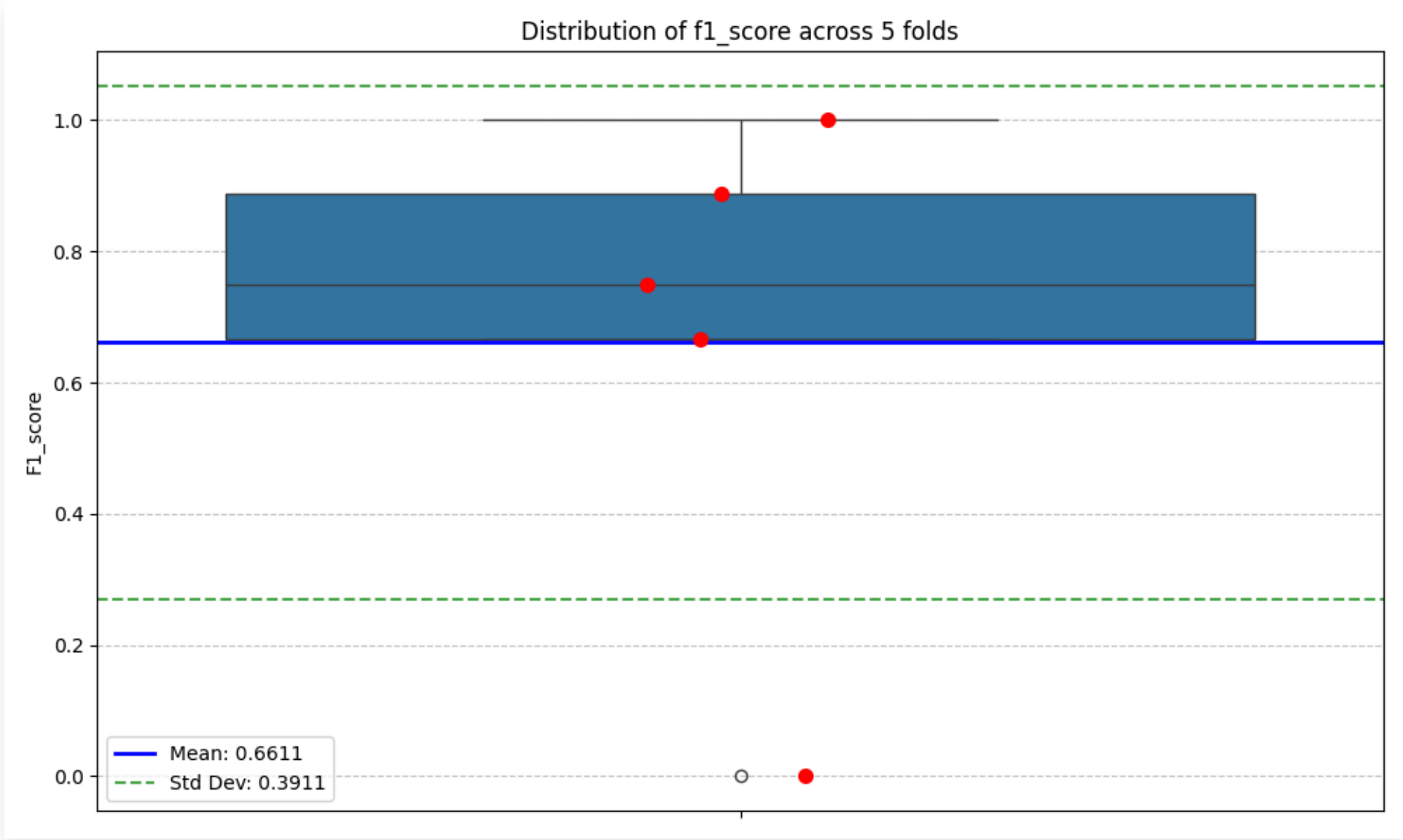
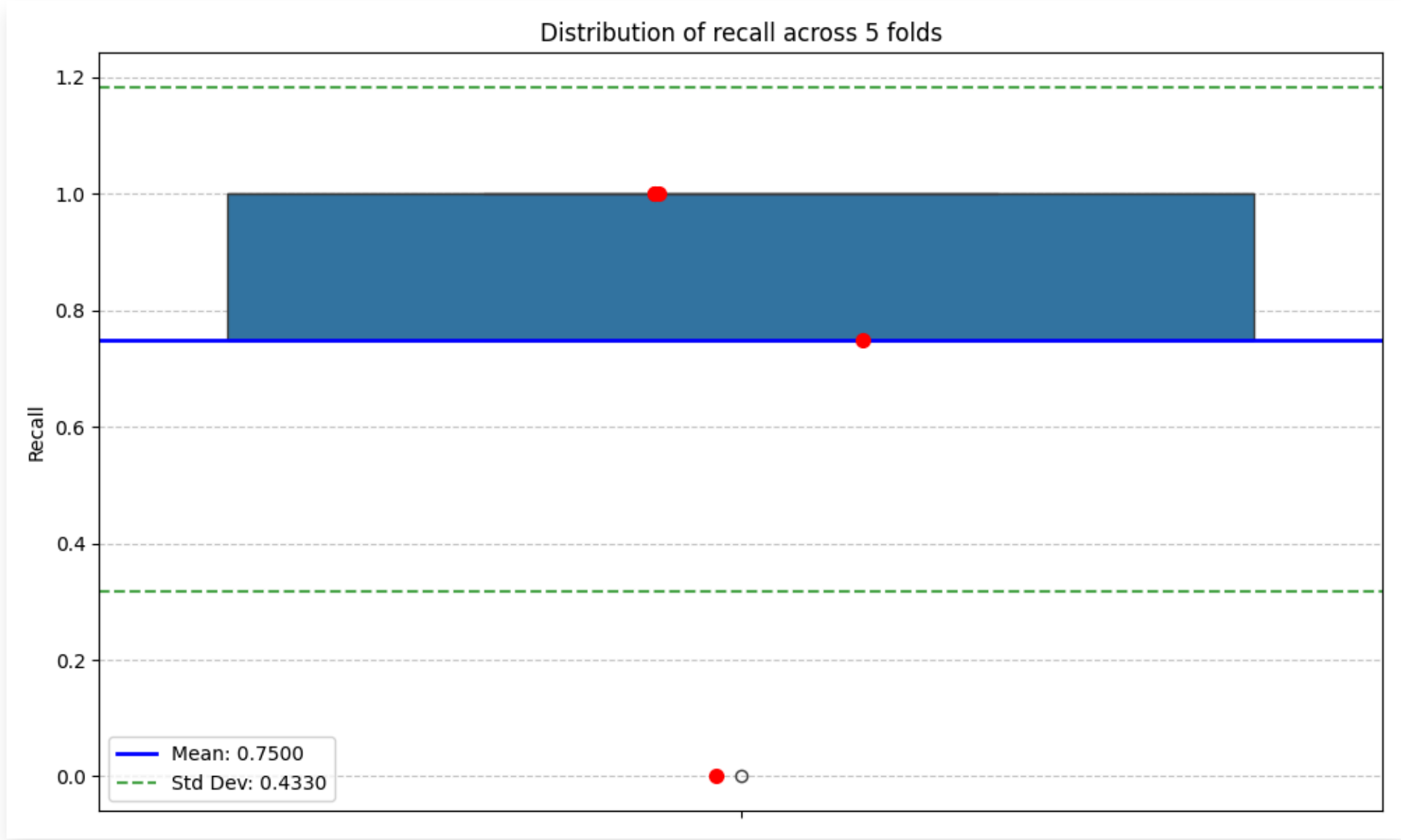
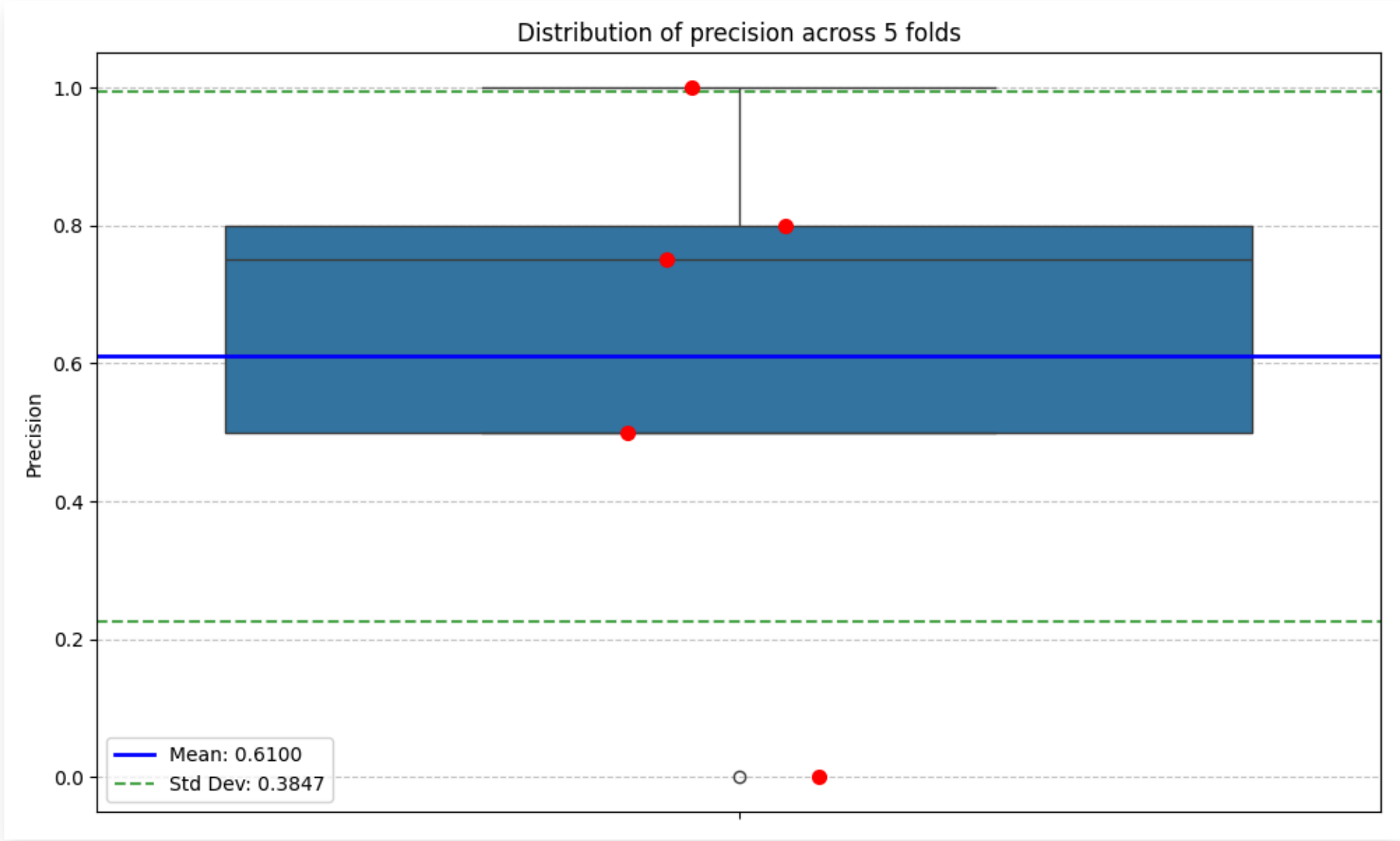
Overview

- Total samples analyzed: 2185
- Number of anomalies in dataset: 11
- Percentage of anomalies: 0.50%
- Number of folds: 5

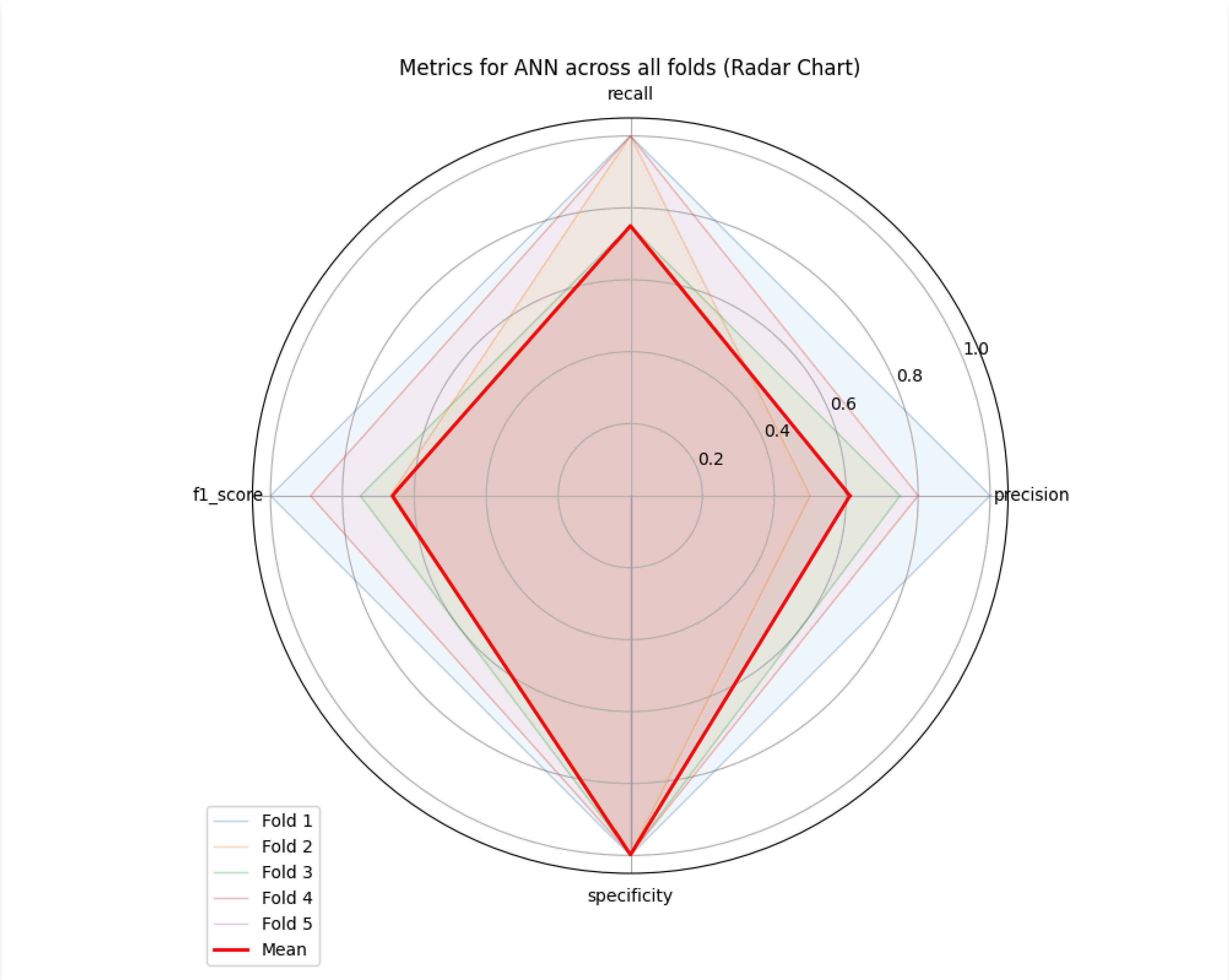
Main Metrics (mean \pm std)

Metric	Mean	Std Dev	Min	Max
precision	0.6100	0.3847	0.0000	1.0000
recall	0.7500	0.4330	0.0000	1.0000
f1_score	0.6611	0.3911	0.0000	1.0000
auc_roc	0.9679	0.0627	0.8738	1.0000
specificity	0.9982	0.0010	0.9977	1.0000

Metrics Visualization



Metrics Radar Chart



Interpretation

The metrics show consistency across folds, indicating that the model generalizes well to unseen data. The high variation in F1-score (CV=0.592) might indicate some instability in predictions across different data subsets.

Conclusion

The Artificial Neural Network model shows overall good performance in classifying anomalies in the predictive maintenance dataset.