

Uncertainty & Calibration Report

Dataset Summary:

Input: demo_cipo.csvTotal samples: 26546

- Classes: Binary (Green / No)

Model Calibration Summary:

- Expected Calibration Error (ECE): 0.735

- Number of confidence bins: 10

Calibration Analysis:

The model shows signs of poor calibration (ECE = 0.735). Key observations:

- 1. Some low-confidence bins (e.g., 0.0-0.1) exhibit high accuracy, indicating underconfi
- 2. Some mid-confidence bins (e.g., 0.4-0.6) display mismatches between predicted confide
- 3. Overall, the model tends to be overconfident in several ranges, with a large divergen

Recommendations:

- Apply temperature scaling as a simple post-hoc calibration fix.
- Evaluate entropy-based or margin-based uncertainty metrics.
- Consider training a meta-model to predict model loss or uncertainty.
- Re-evaluate the effect of label smoothing or data augmentations.

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