CircuitGuard AI

PCB Defect Detection Report

Report ID:	RPT-17BB39D1
Generated On:	2025-11-17 22:08:20
Model:	ResNet50 (custom)
Device:	cpu

Executive Summary

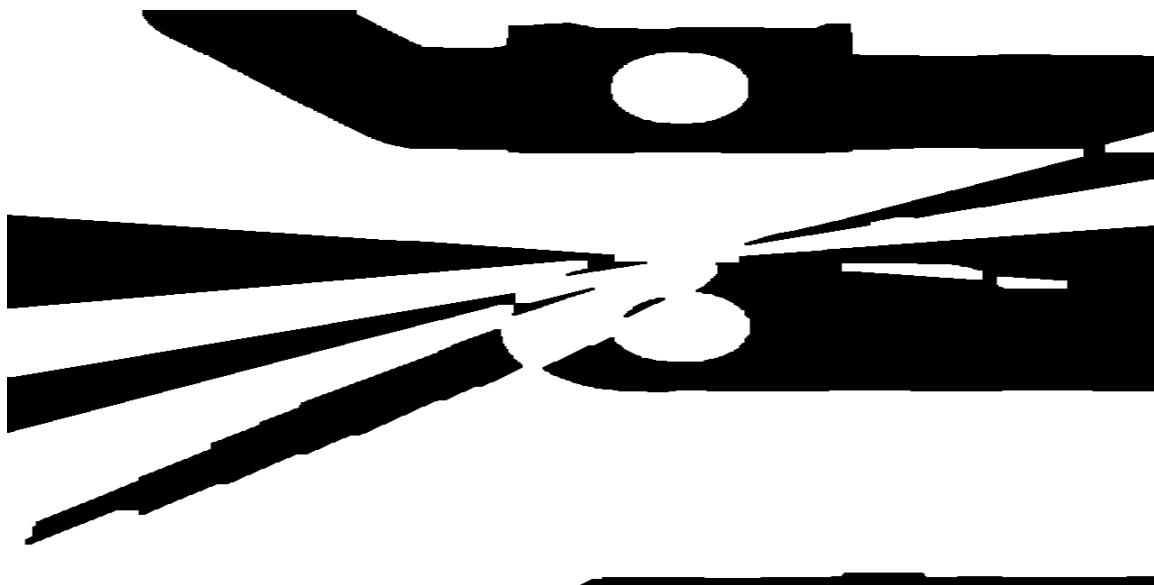Detected 3 defect(s). High:1, Medium:2, Low:0. Avg conf: 77.54%.

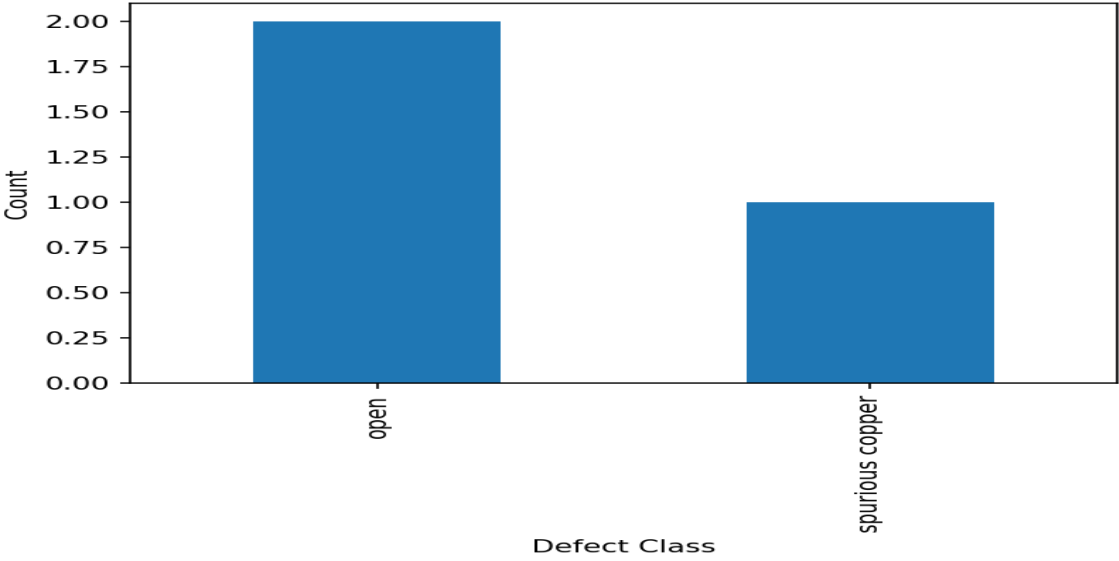| Metric	Value
Total Defects	3
High Confidence (>=80%)	1
Medium Confidence (60–80%)	2
Low Confidence (<60%)	0
Average Confidence	77.54%

Input Images & Maps
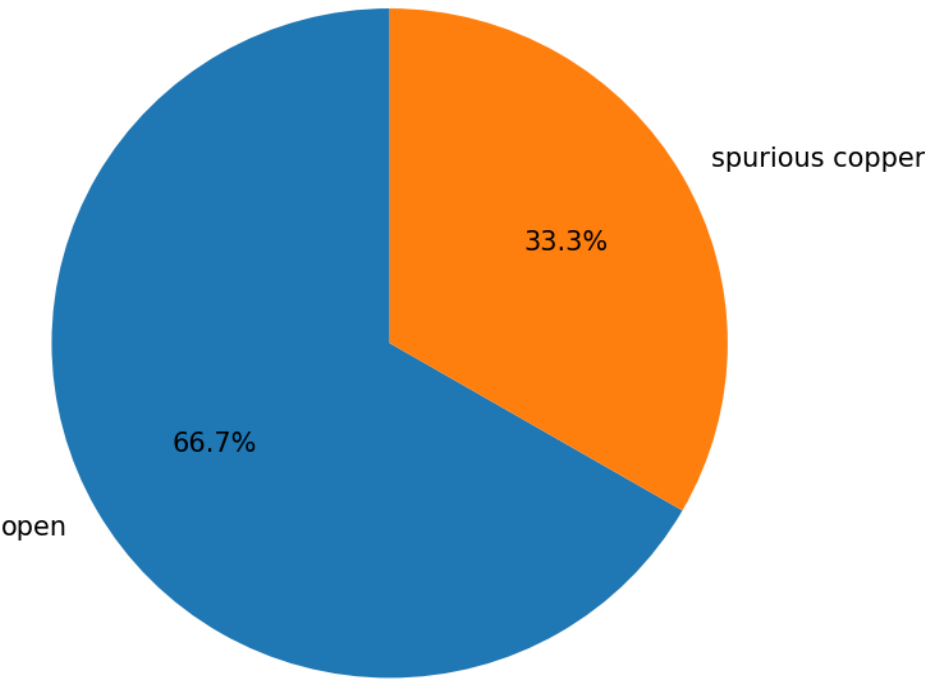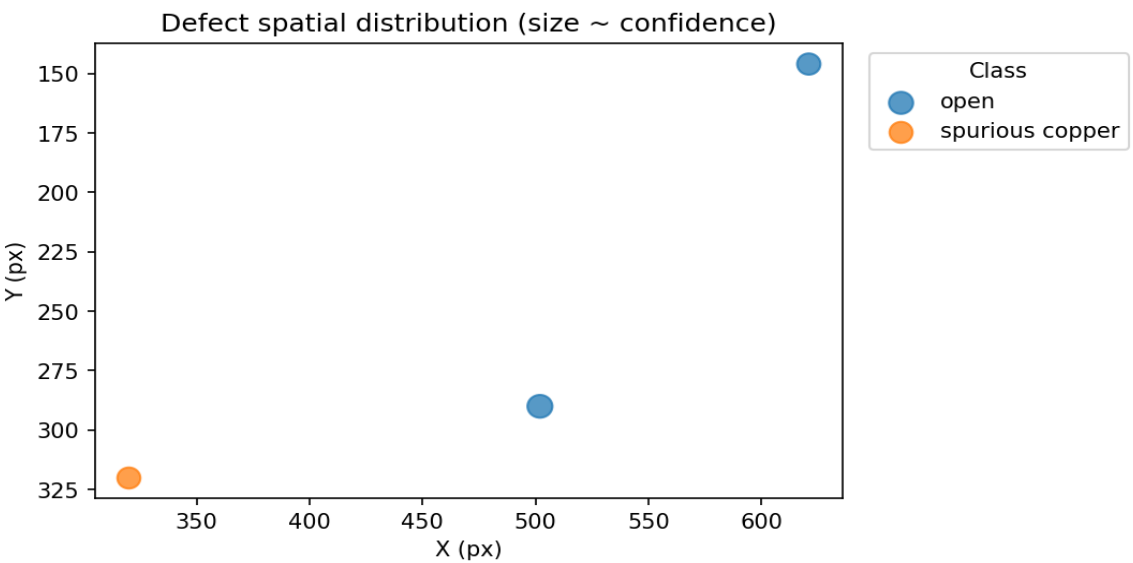
Difference Map
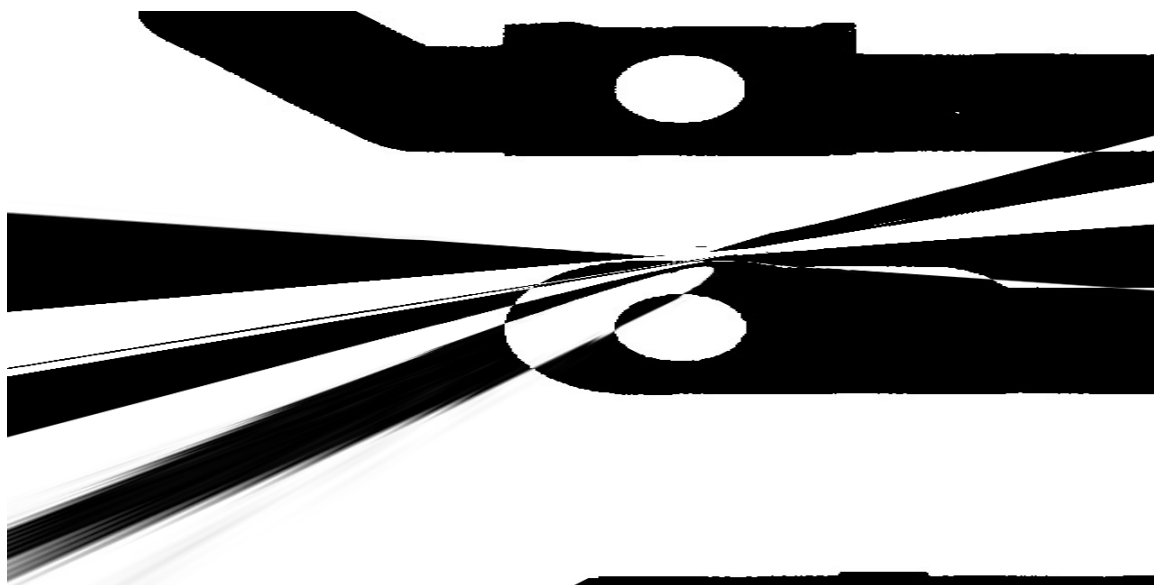
Binary Mask

Statistical Charts

Defect Count by Class

Defect Distribution

Spatial Distribution & Confidence

Defect spatial distribution (size ~ confidence)
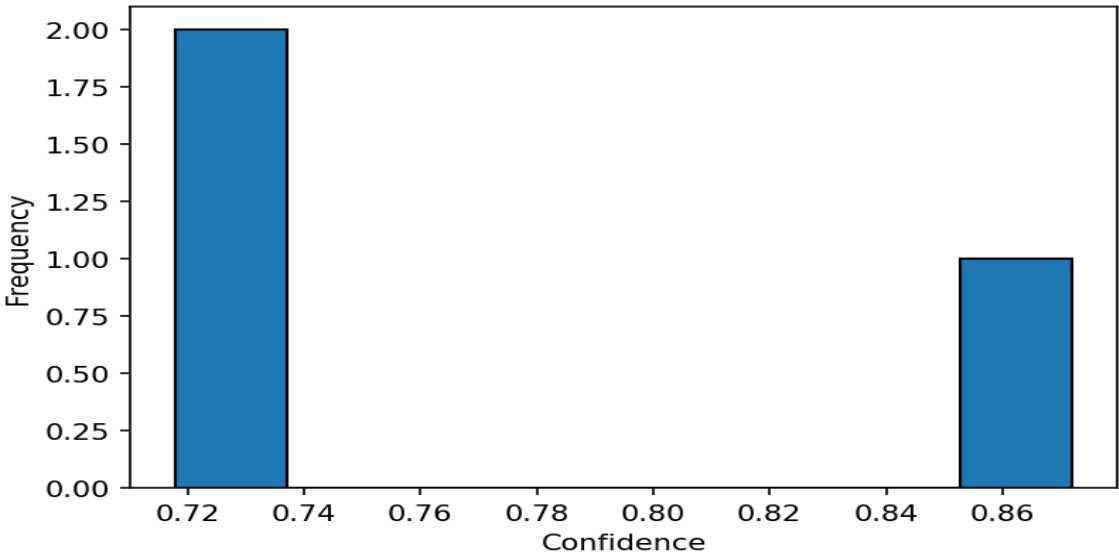
Annotated PCB & Defect Table
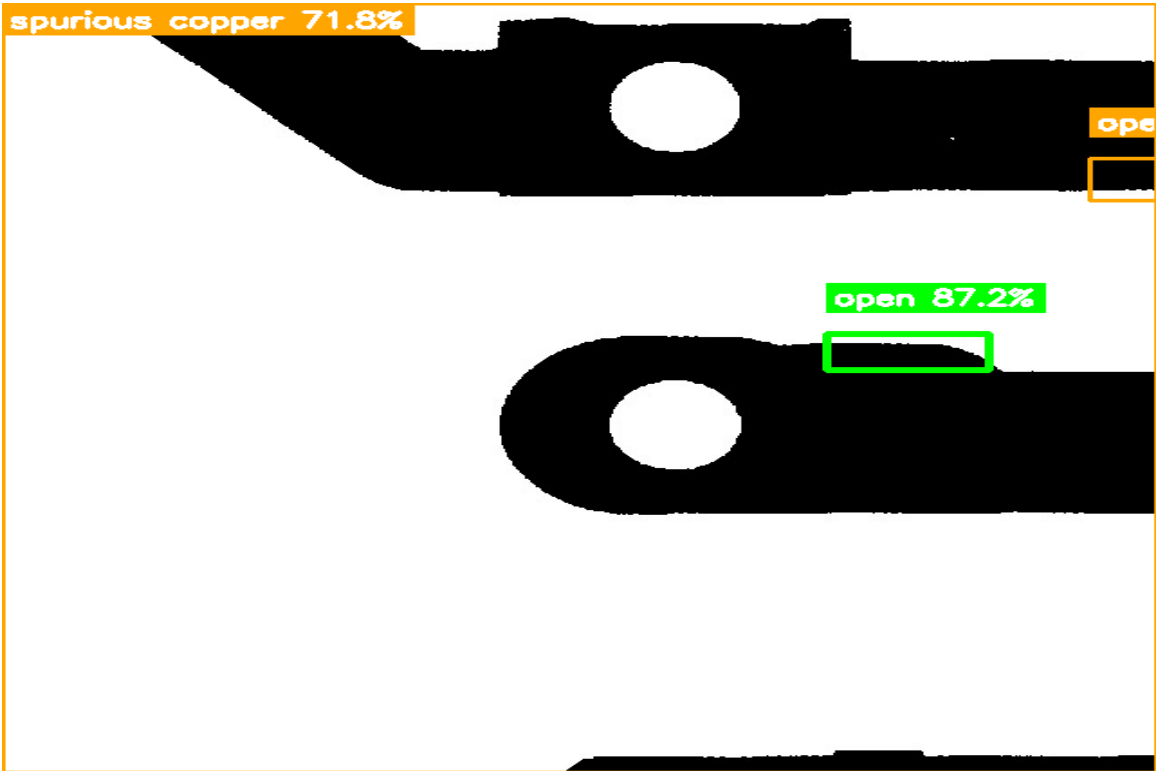
ID	Type	Confidence	Position (X,Y)	Size (W×H)
#2	open	87.2%	(502,290)	90x30
#3	open	73.6%	(621,146)	37x35
#6	spurious copper	71.8%	(320,320)	640x640

Recommendations

Inspect high-confidence regions first. If too many false positives, increase min ROI area or confidence threshold.

Conclusion

Automated inspection completed in 2.48 seconds.