SolarVision AI

PV Panel Defect Detection Report

Generated: February 05, 2026 at 16:51

Executive Summary

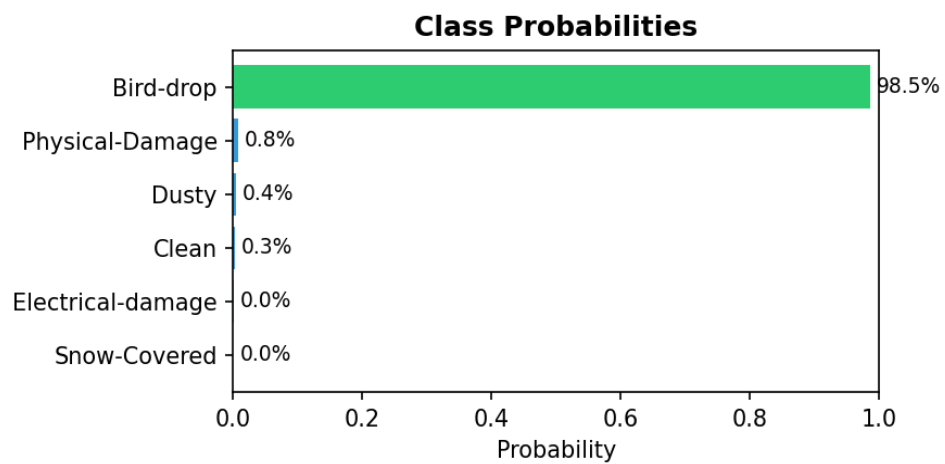| Metric	Value
Total Images Analyzed	36
Average Confidence	96.4%
Detection Model	ResNet18 + SVM (96.8% accuracy)
Report Generated By	SolarVision AI v1.0

Result 1: Bird-drop_Bird (159).jpg

Predicted Class: Bird-drop
Confidence: 98.5%
Top 3 Classes:
  • Bird-drop: 98.5%
  • Physical-Damage: 0.8%
  • Dusty: 0.4%

Class Probabilities

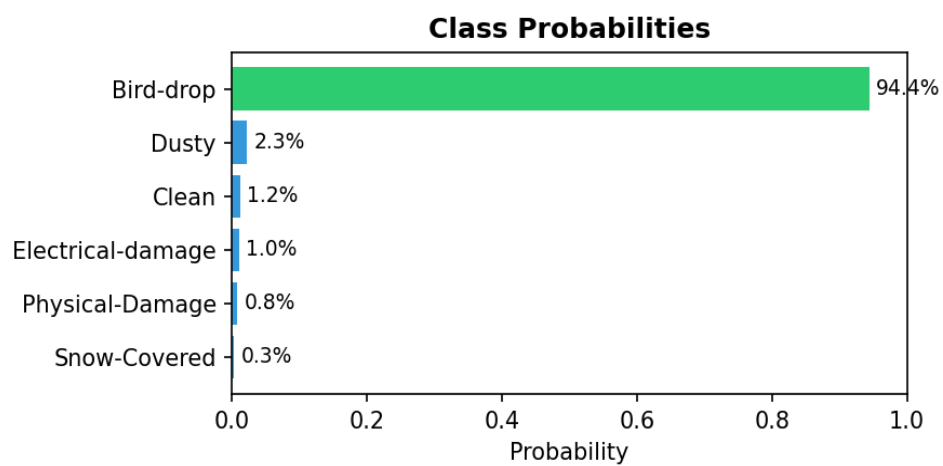| Class	Probability
Bird-drop	98.5%
Physical-Damage	0.8%
Dusty	0.4%
Clean	0.3%
Electrical-damage	0.0%
Snow-Covered	0.0%

Result 2: Bird-drop_Bird (179).JPG

Predicted Class: Bird-drop
Confidence: 94.4%
Top 3 Classes:
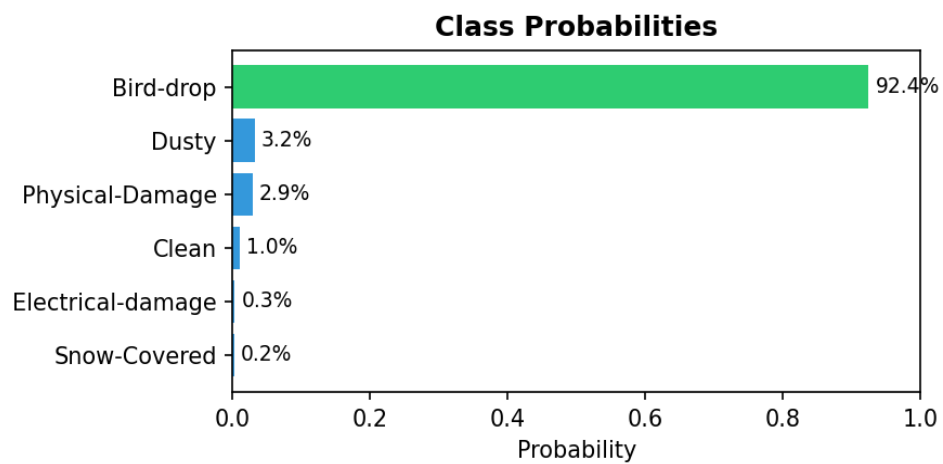- Bird-drop: 94.4%
- Dusty: 2.3%
- Clean: 1.2%

Class Probabilities

Class	Probability
Bird-drop	94.4%
Dusty	2.3%
Clean	1.2%
Electrical-damage	1.0%
Physical-Damage	0.8%
Snow-Covered	0.3%

Result 3: Bird-drop_Bird (80).jpg

Predicted Class: Bird-drop
Confidence: 92.4%
Top 3 Classes:
 • Bird-drop: 92.4%
 • Dusty: 3.2%
 • Physical-Damage: 2.9%

Class Probabilities

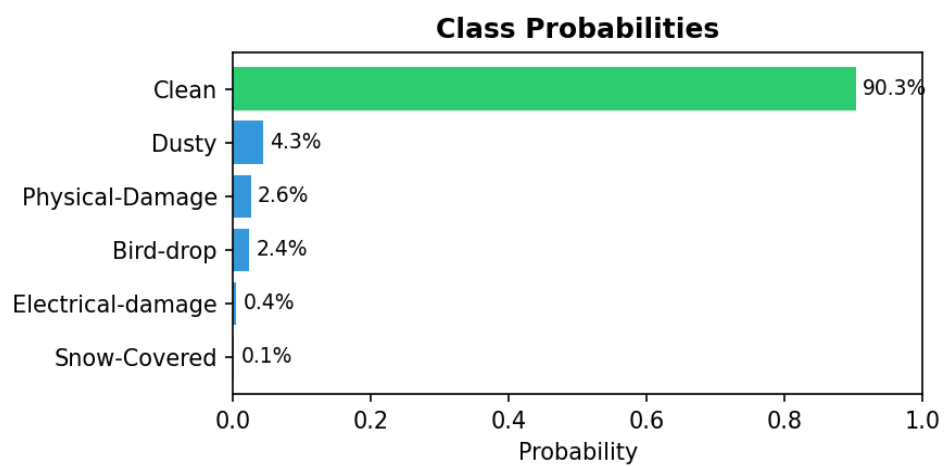| Class	Probability
Bird-drop	92.4%
Dusty	3.2%
Physical-Damage	2.9%
Clean	1.0%
Electrical-damage	0.3%
Snow-Covered	0.2%

Result 4: Clean_Clean (122).jpg

Predicted Class: Clean
Confidence: 90.3%
Top 3 Classes:
 • Clean: 90.3%
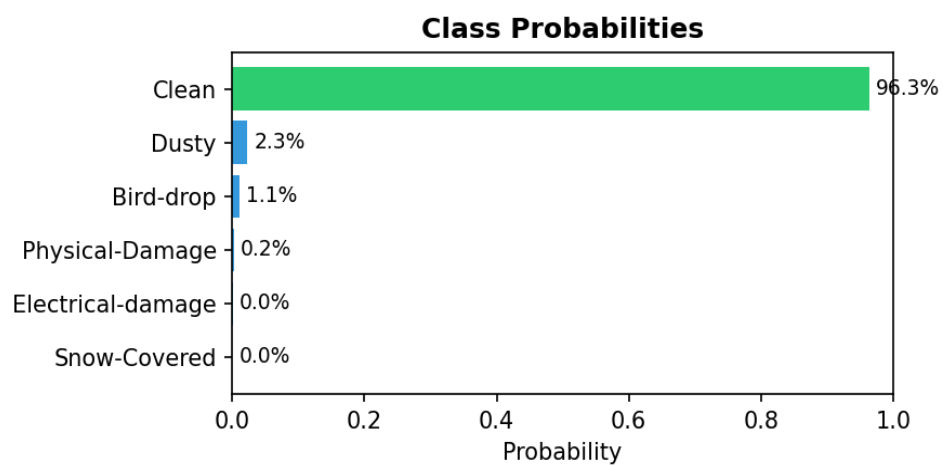 • Dusty: 4.3%
 • Physical-Damage: 2.6%

Class Probabilities

Class	Probability
Clean	90.3%
Dusty	4.3%
Physical-Damage	2.6%
Bird-drop	2.4%
Electrical-damage	0.4%
Snow-Covered	0.1%

Result 5: Clean_Clean (47).jpg

Predicted Class: Clean
Confidence: 96.3%
Top 3 Classes:
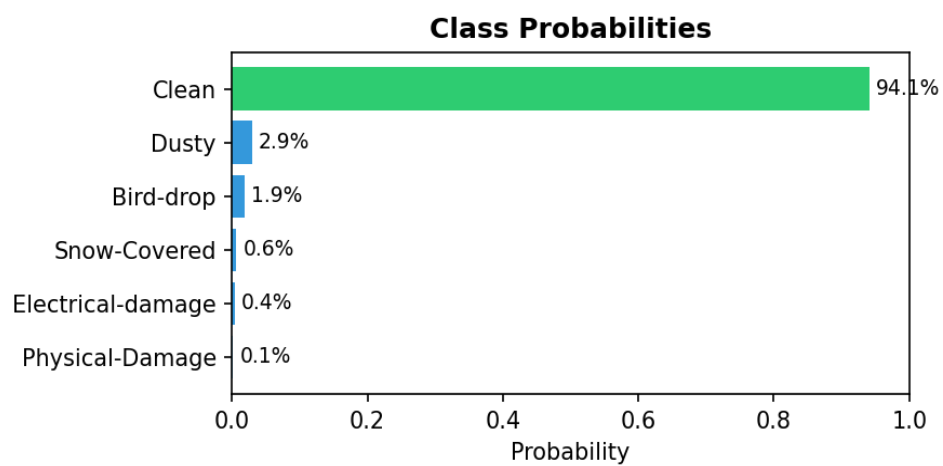 • Clean: 96.3%
  • Dusty: 2.3%
  • Bird-drop: 1.1%

Class Probabilities

Class	Probability
Clean	96.3%
Dusty	2.3%
Bird-drop	1.1%
Physical-Damage	0.2%
Electrical-damage	0.0%
Snow-Covered	0.0%

Result 6: Clean_Clean (56).jpg

Predicted Class: Clean
Confidence: 94.1%
Top 3 Classes:
 • Clean: 94.1%
 • Dusty: 2.9%
 • Bird-drop: 1.9%

Class Probabilities

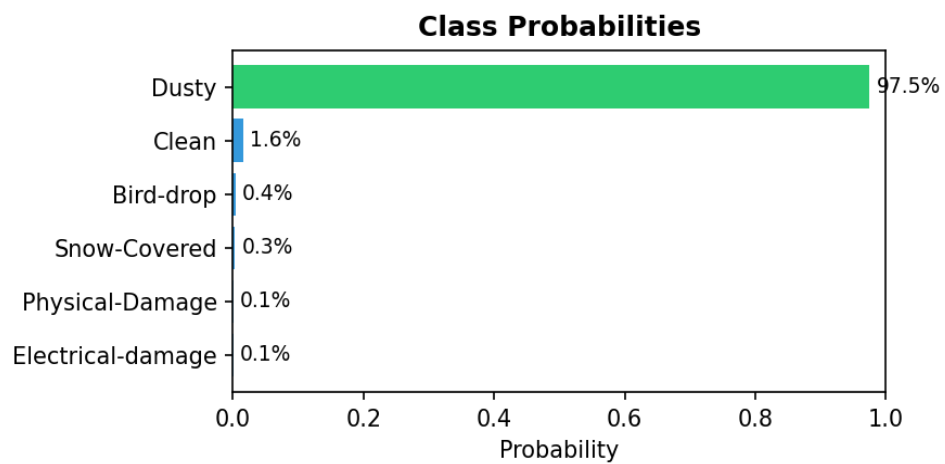| Class	Probability
Clean	94.1%
Dusty	2.9%
Bird-drop	1.9%
Snow-Covered	0.6%
Electrical-damage	0.4%
Physical-Damage	0.1%

Result 7: Dusty_Dust (131).jpg

Predicted Class: Dusty
Confidence: 97.5%
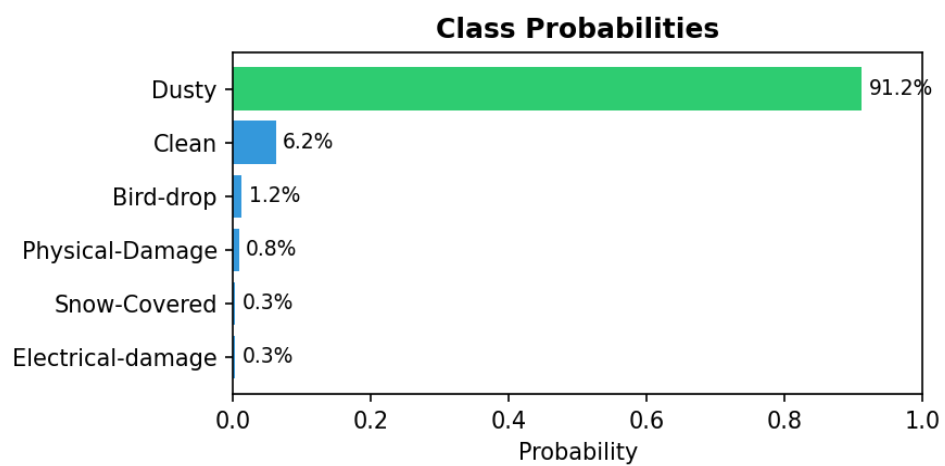**Top 3 Classes:**
- Dusty: 97.5%
- Clean: 1.6%
- Bird-drop: 0.4%

Class Probabilities

Class	Probability
Dusty	97.5%
Clean	1.6%
Bird-drop	0.4%
Snow-Covered	0.3%
Physical-Damage	0.1%
Electrical-damage	0.1%

Result 8: Dusty_Dust (22).jpg

Predicted Class: Dusty
Confidence: 91.2%
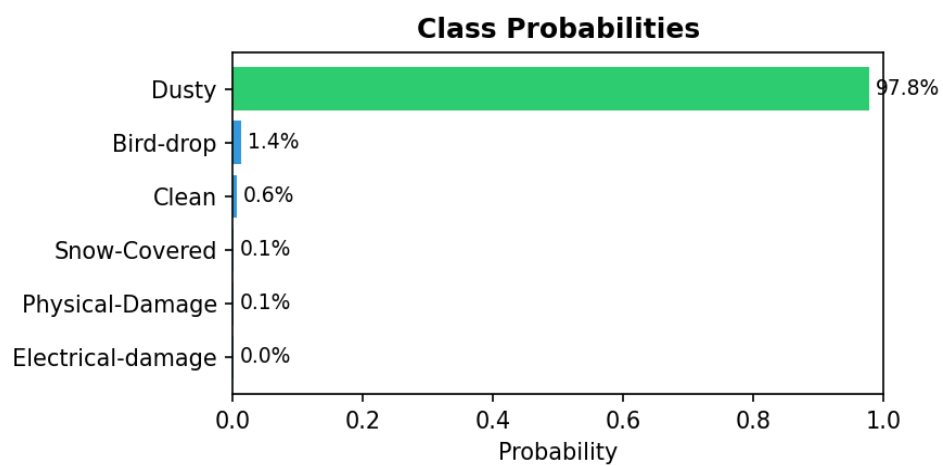**Top 3 Classes:**
• Dusty: 91.2%
• Clean: 6.2%
• Bird-drop: 1.2%

Class Probabilities

Class	Probability
Dusty	91.2%
Clean	6.2%
Bird-drop	1.2%
Physical-Damage	0.8%
Snow-Covered	0.3%
Electrical-damage	0.3%

Result 9: Dusty_Dust (43).jpg

Predicted Class: Dusty
Confidence: 97.8%
Top 3 Classes:
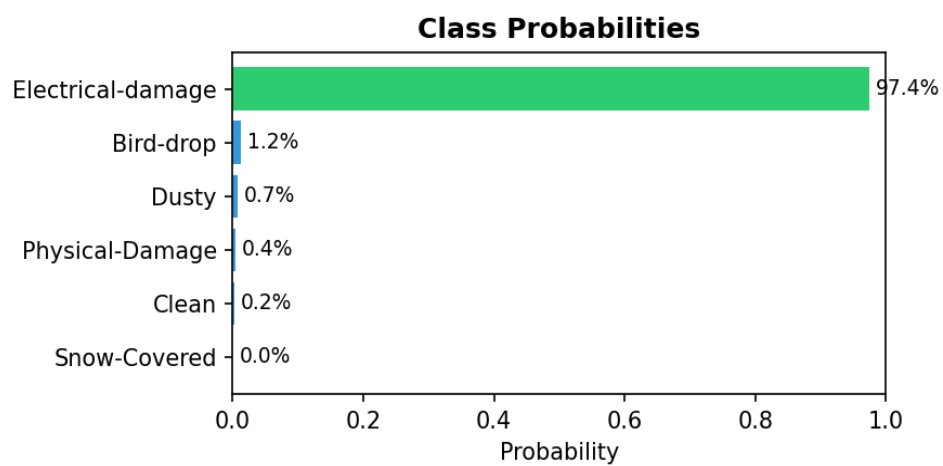 • Dusty: 97.8%
  • Bird-drop: 1.4%
  • Clean: 0.6%

Class Probabilities

Class	Probability
Dusty	97.8%
Bird-drop	1.4%
Clean	0.6%
Snow-Covered	0.1%
Physical-Damage	0.1%
Electrical-damage	0.0%

Result 10: Electrical-damage_Electrical (107).jpg

Predicted Class: Electrical-damage
Confidence: 97.4%
Top 3 Classes:
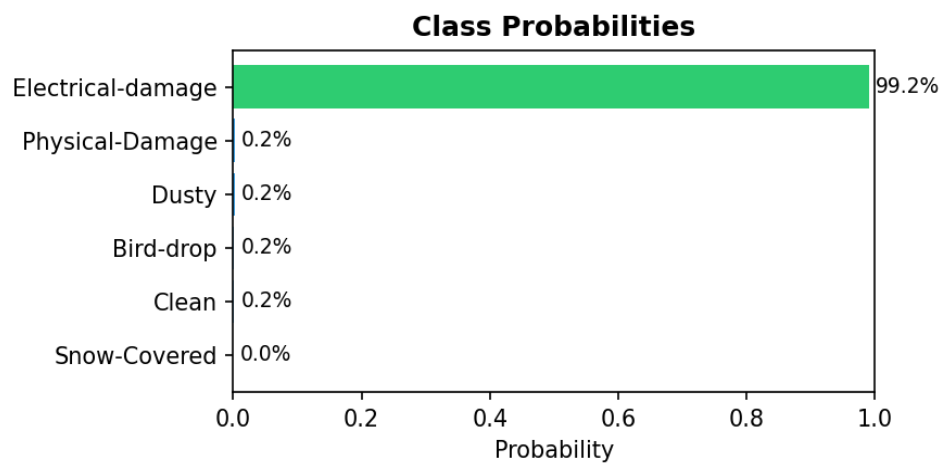 • Electrical-damage: 97.4%
 • Bird-drop: 1.2%
 • Dusty: 0.7%

Class Probabilities

Result 11: Electrical-damage_Electrical (72).jpg

Predicted Class: Electrical-damage
Confidence: 99.2%
Top 3 Classes:
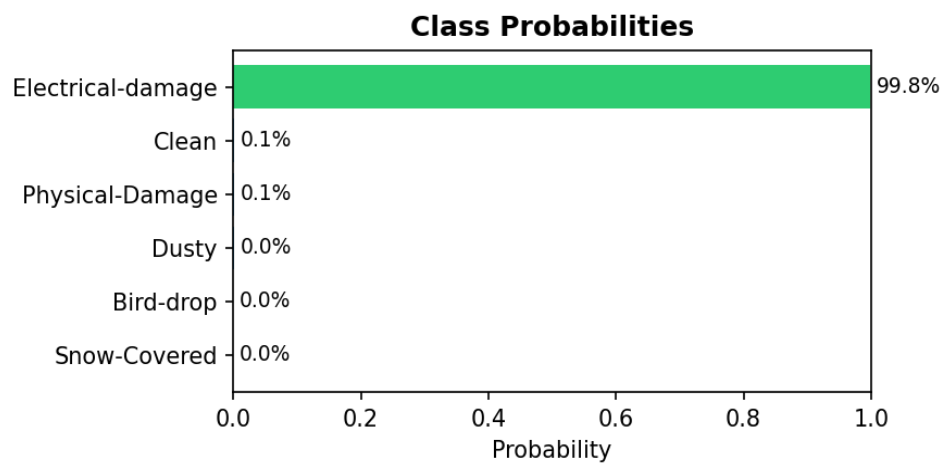 • Electrical-damage: 99.2%
  • Physical-Damage: 0.2%
  • Dusty: 0.2%

Class Probabilities

Class	Probability
Electrical-damage	99.2%
Physical-Damage	0.2%
Dusty	0.2%
Bird-drop	0.2%
Clean	0.2%
Snow-Covered	0.0%

Result 12: Electrical-damage_Electrical (78).jpg

Predicted Class: Electrical-damage
Confidence: 99.8%
Top 3 Classes:
 • Electrical-damage: 99.8%
 • Clean: 0.1%
 • Physical-Damage: 0.1%

Class Probabilities

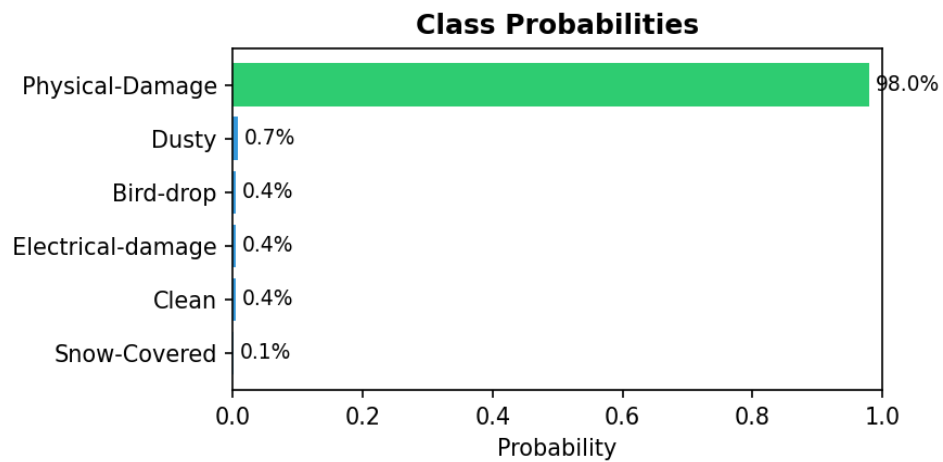| Class	Probability
Electrical-damage	99.8%
Clean	0.1%
Physical-Damage	0.1%
Dusty	0.0%
Bird-drop	0.0%
Snow-Covered	0.0%

Result 13: Physical-Damage_Physical (148).jpg

Predicted Class: Physical-Damage
Confidence: 98.0%
Top 3 Classes:
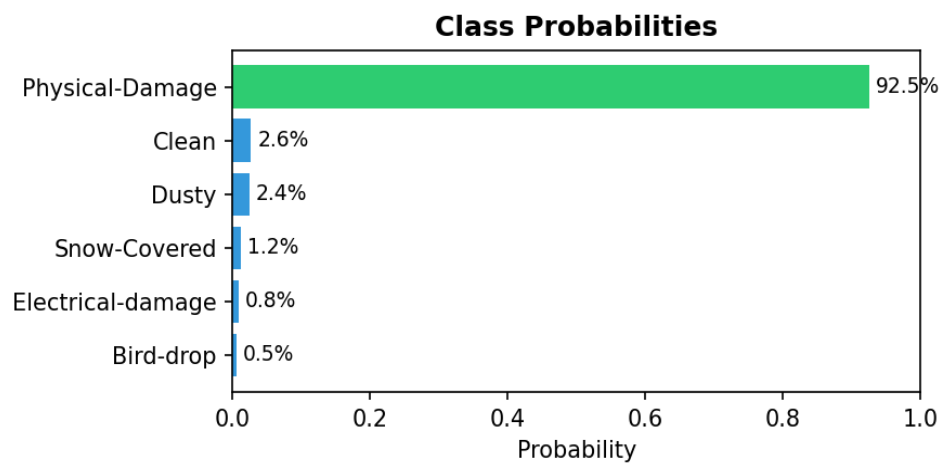 • Physical-Damage: 98.0%
 • Dusty: 0.7%
 • Bird-drop: 0.4%

Class Probabilities

Class	Probability
Physical-Damage	98.0%
Dusty	0.7%
Bird-drop	0.4%
Electrical-damage	0.4%
Clean	0.4%
Snow-Covered	0.1%

Result 14: Physical-Damage_Physical (38).jpg

Predicted Class: Physical-Damage
Confidence: 92.5%
Top 3 Classes:
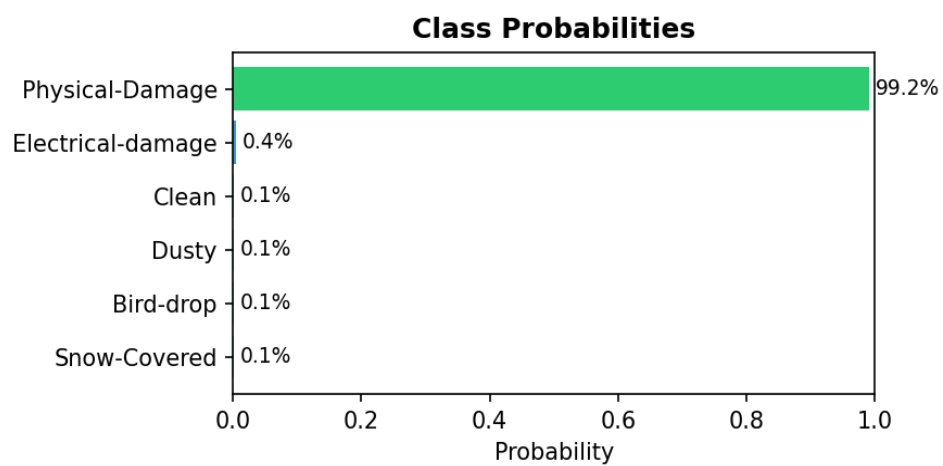- Physical-Damage: 92.5%
- Clean: 2.6%
- Dusty: 2.4%

Class Probabilities

Result 15: Physical-Damage_Physical (54).jpg

Predicted Class: Physical-Damage
Confidence: 99.2%
Top 3 Classes:
  • Physical-Damage: 99.2%
  • Electrical-damage: 0.4%
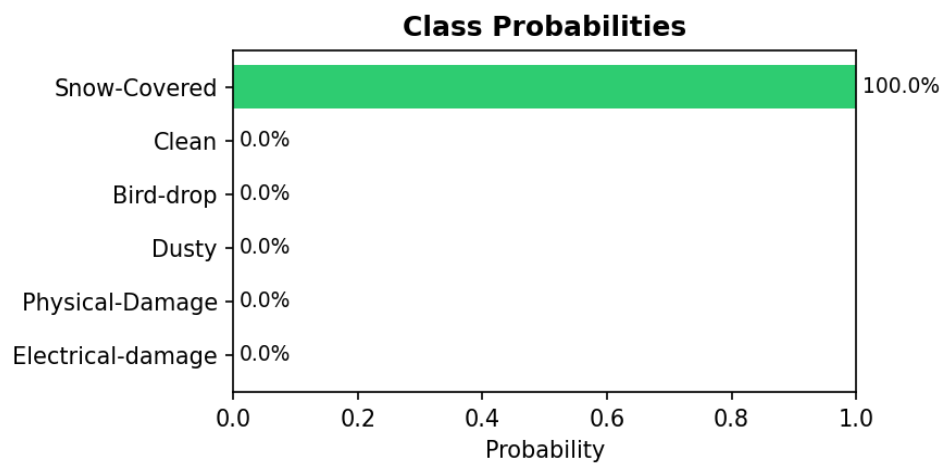 • Clean: 0.1%

Result 16: Snow-Covered_Snow (149).jpg

Predicted Class: Snow-Covered
Confidence: 100.0%
Top 3 Classes:
  • Snow-Covered: 100.0%
  • Clean: 0.0%
  • Bird-drop: 0.0%

Class Probabilities

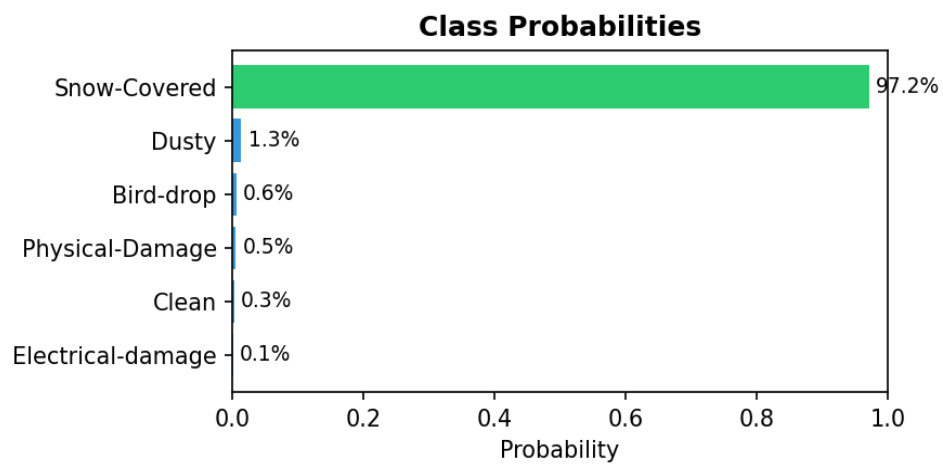| Class	Probability
Snow-Covered	100.0%
Clean	0.0%
Bird-drop	0.0%
Dusty	0.0%
Physical-Damage	0.0%
Electrical-damage	0.0%

Result 17: Snow-Covered_Snow (154).jpg

Predicted Class: Snow-Covered
Confidence: 97.2%
Top 3 Classes:
 • Snow-Covered: 97.2%
 • Dusty: 1.3%
 • Bird-drop: 0.6%

Class Probabilities

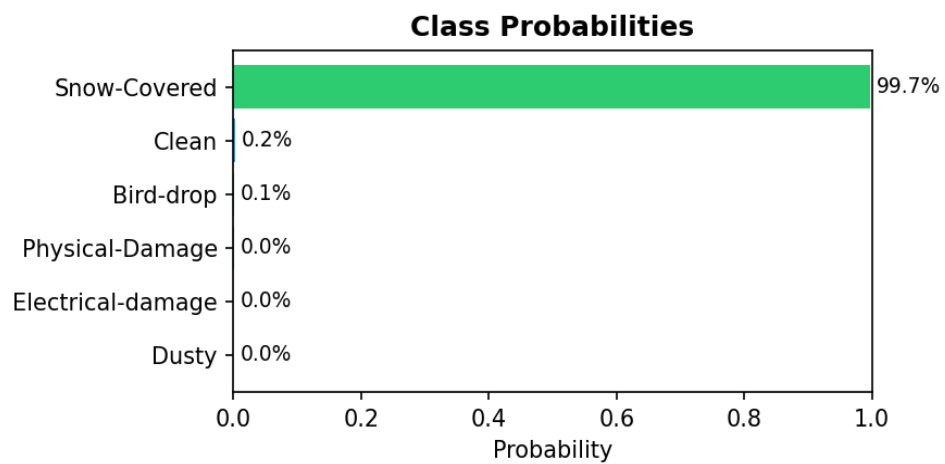| Class	Probability
Snow-Covered	97.2%
Dusty	1.3%
Bird-drop	0.6%
Physical-Damage	0.5%
Clean	0.3%
Electrical-damage	0.1%

Result 18: Snow-Covered_Snow (173).jpg

Predicted Class: Snow-Covered
Confidence: 99.7%
Top 3 Classes:
 • Snow-Covered: 99.7%
 • Clean: 0.2%
 • Bird-drop: 0.1%
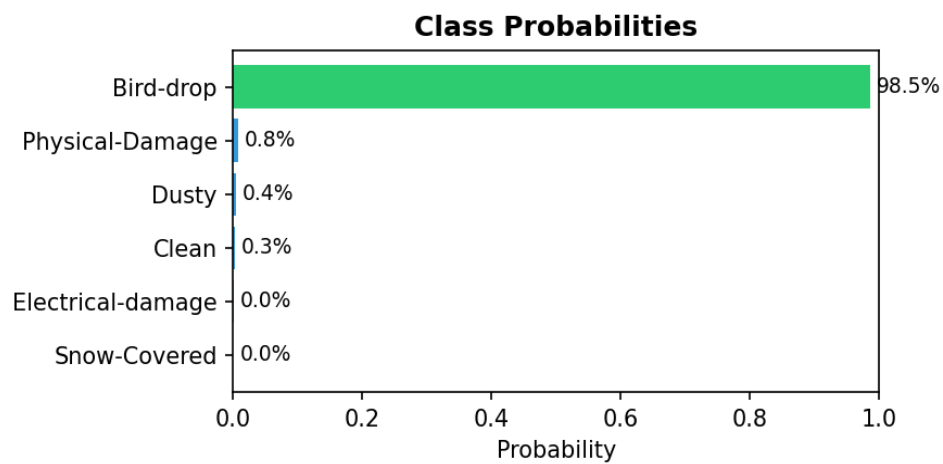
Class Probabilities

Result 19: Bird-drop_Bird (159).jpg

Predicted Class: Bird-drop
Confidence: 98.5%
Top 3 Classes:
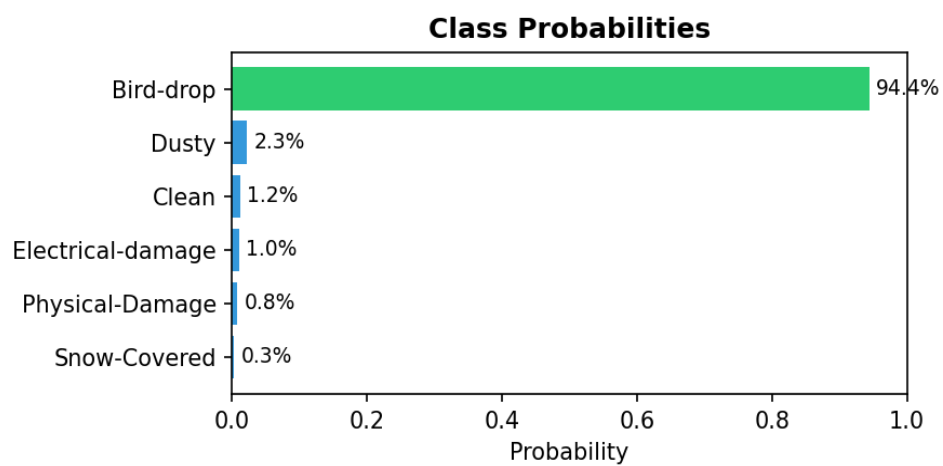- Bird-drop: 98.5%
- Physical-Damage: 0.8%
- Dusty: 0.4%

Class Probabilities

Class	Probability
Bird-drop	98.5%
Physical-Damage	0.8%
Dusty	0.4%
Clean	0.3%
Electrical-damage	0.0%
Snow-Covered	0.0%

Result 20: Bird-drop_Bird (179).JPG

Predicted Class: Bird-drop
Confidence: 94.4%
Top 3 Classes:
 • Bird-drop: 94.4%
 • Dusty: 2.3%
 • Clean: 1.2%

Class Probabilities

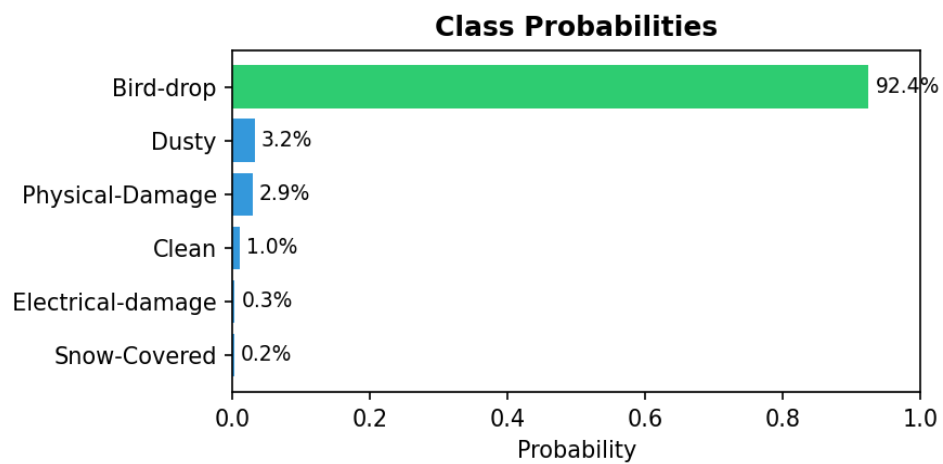| Class	Probability
Bird-drop	94.4%
Dusty	2.3%
Clean	1.2%
Electrical-damage	1.0%
Physical-Damage	0.8%
Snow-Covered	0.3%

Result 21: Bird-drop_Bird (80).jpg

Predicted Class: Bird-drop
Confidence: 92.4%
Top 3 Classes:
• Bird-drop: 92.4%
• Dusty: 3.2%
• Physical-Damage: 2.9%

Class Probabilities

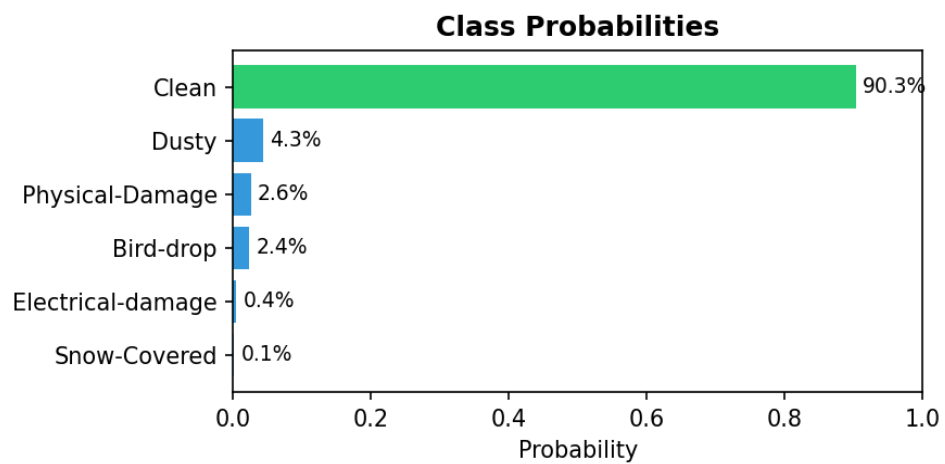| Class	Probability
Bird-drop	92.4%
Dusty	3.2%
Physical-Damage	2.9%
Clean	1.0%
Electrical-damage	0.3%
Snow-Covered	0.2%

Result 22: Clean_Clean (122).jpg

Predicted Class: Clean
Confidence: 90.3%
Top 3 Classes:
  • Clean: 90.3%
  • Dusty: 4.3%
  • Physical-Damage: 2.6%

Class Probabilities

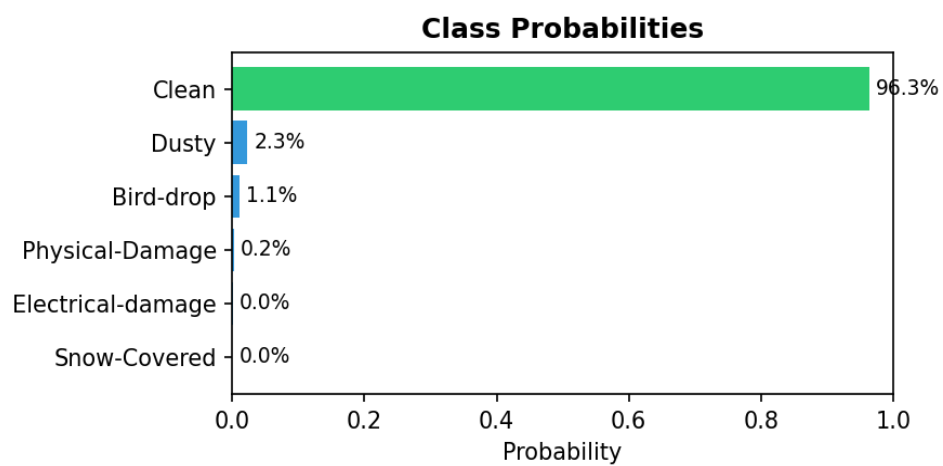| Class	Probability
Clean	90.3%
Dusty	4.3%
Physical-Damage	2.6%
Bird-drop	2.4%
Electrical-damage	0.4%
Snow-Covered	0.1%

Result 23: Clean_Clean (47).jpg

Predicted Class: Clean
Confidence: 96.3%
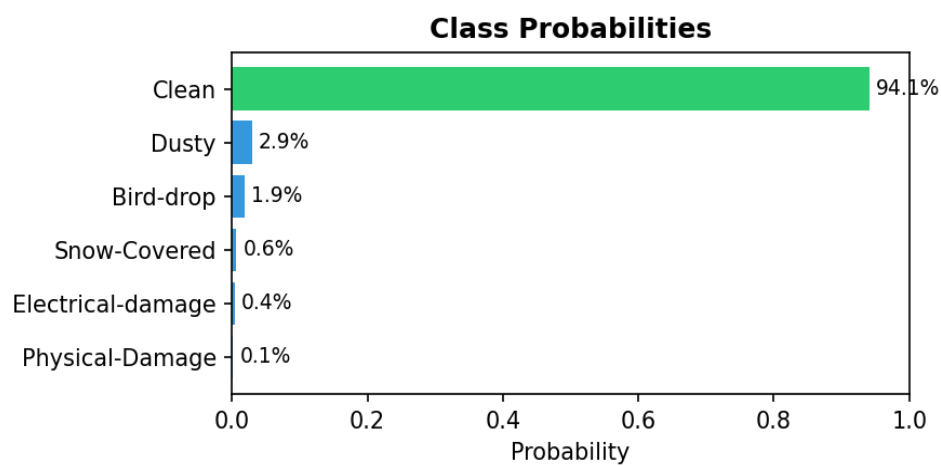**Top 3 Classes:**
- Clean: 96.3%
- Dusty: 2.3%
- Bird-drop: 1.1%

Class Probabilities

Class	Probability
Clean	96.3%
Dusty	2.3%
Bird-drop	1.1%
Physical-Damage	0.2%
Electrical-damage	0.0%
Snow-Covered	0.0%

Result 24: Clean_Clean (56).jpg

Predicted Class: Clean
Confidence: 94.1%
Top 3 Classes:
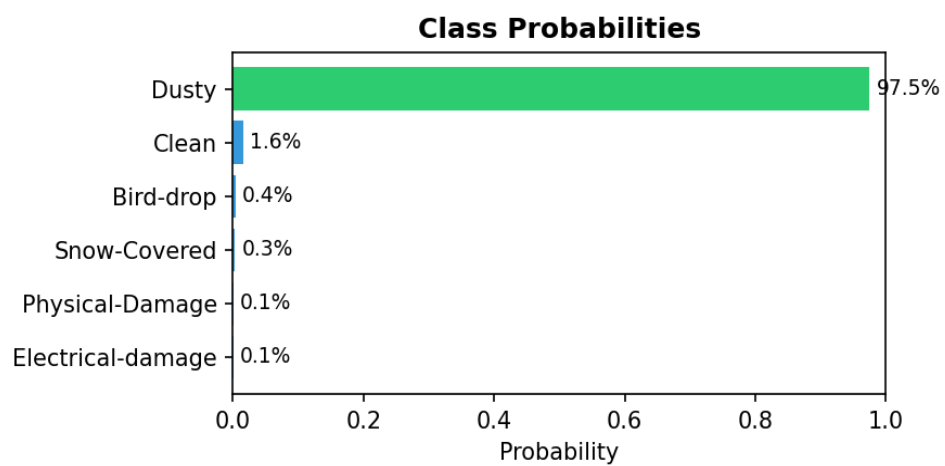 • Clean: 94.1%
 • Dusty: 2.9%
 • Bird-drop: 1.9%

Result 25: Dusty_Dust (131).jpg

Predicted Class: Dusty
Confidence: 97.5%
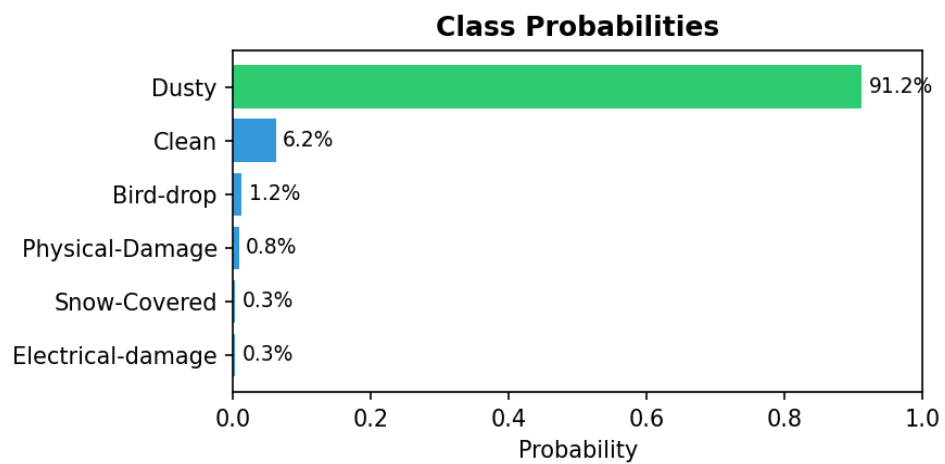**Top 3 Classes:**
- Dusty: 97.5%
- Clean: 1.6%
- Bird-drop: 0.4%

Class Probabilities

Class	Probability
Dusty	97.5%
Clean	1.6%
Bird-drop	0.4%
Snow-Covered	0.3%
Physical-Damage	0.1%
Electrical-damage	0.1%

Result 26: Dusty_Dust (22).jpg

Predicted Class: Dusty
Confidence: 91.2%
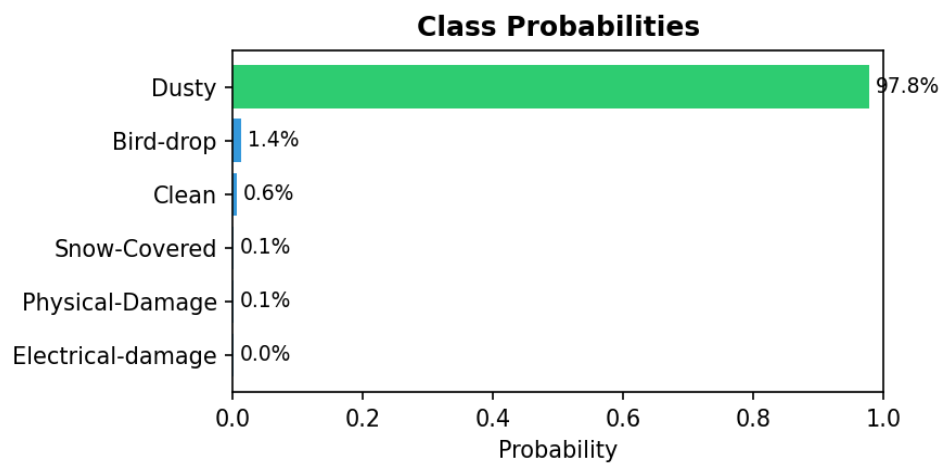**Top 3 Classes:**
• Dusty: 91.2%
• Clean: 6.2%
• Bird-drop: 1.2%

Class Probabilities

Class	Probability
Dusty	91.2%
Clean	6.2%
Bird-drop	1.2%
Physical-Damage	0.8%
Snow-Covered	0.3%
Electrical-damage	0.3%

Result 27: Dusty_Dust (43).jpg

Predicted Class: Dusty
Confidence: 97.8%
Top 3 Classes:
 • Dusty: 97.8%
 • Bird-drop: 1.4%
 • Clean: 0.6%

Class Probabilities

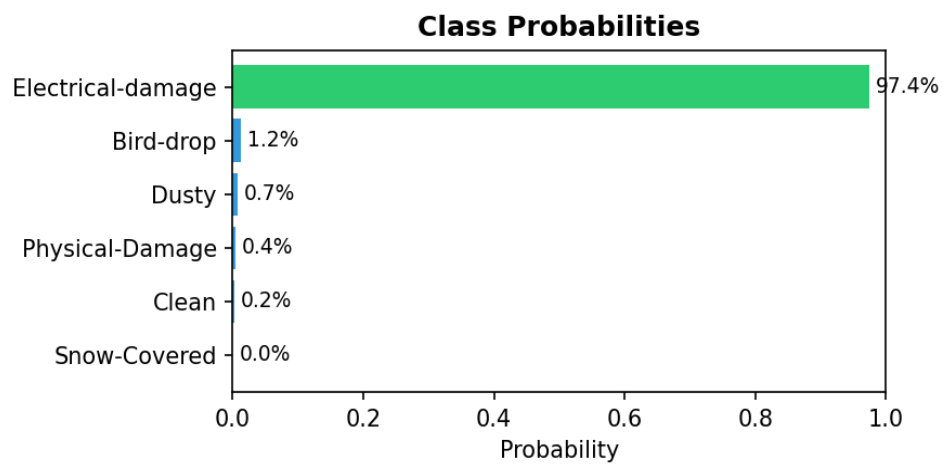| Class	Probability
Dusty	97.8%
Bird-drop	1.4%
Clean	0.6%
Snow-Covered	0.1%
Physical-Damage	0.1%
Electrical-damage	0.0%

Result 28: Electrical-damage_Electrical (107).jpg

Predicted Class: Electrical-damage
Confidence: 97.4%
Top 3 Classes:
 • Electrical-damage: 97.4%
 • Bird-drop: 1.2%
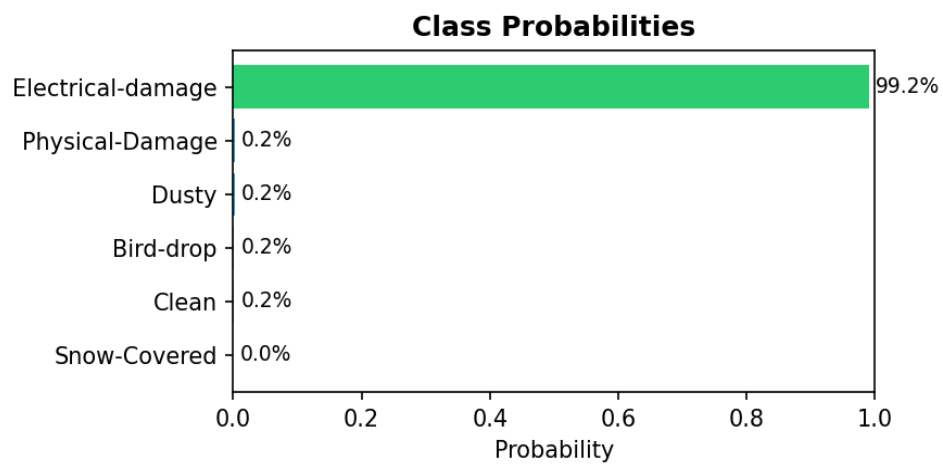 • Dusty: 0.7%

Result 29: Electrical-damage_Electrical (72).jpg

Predicted Class: Electrical-damage
Confidence: 99.2%
Top 3 Classes:
 • Electrical-damage: 99.2%
 • Physical-Damage: 0.2%
 • Dusty: 0.2%

Class Probabilities

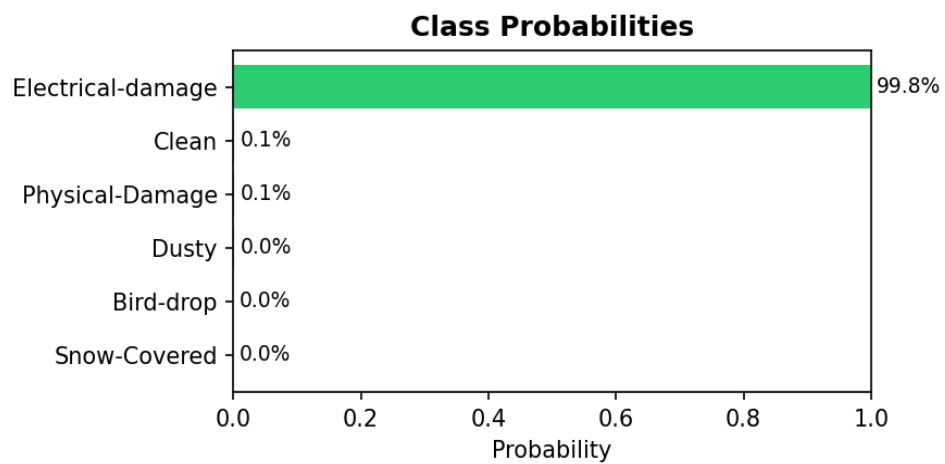| Class	Probability
Electrical-damage	99.2%
Physical-Damage	0.2%
Dusty	0.2%
Bird-drop	0.2%
Clean	0.2%
Snow-Covered	0.0%

Result 30: Electrical-damage_Electrical (78).jpg

Predicted Class: Electrical-damage
Confidence: 99.8%
Top 3 Classes:
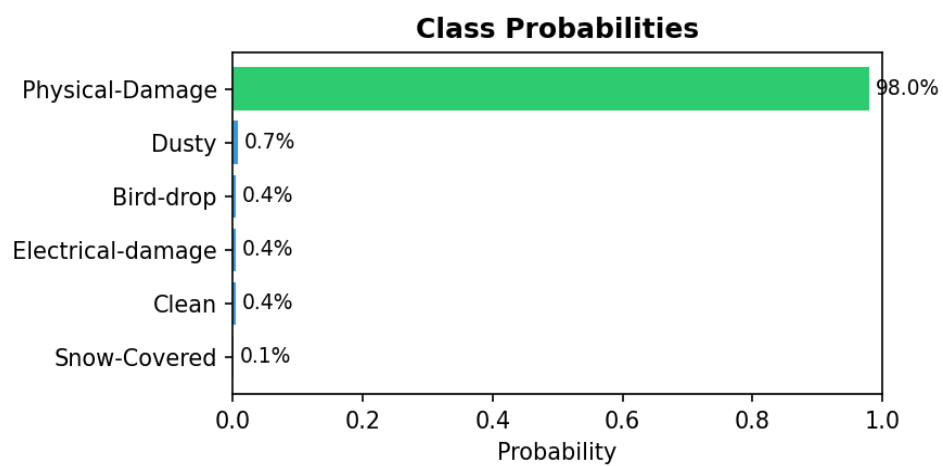- Electrical-damage: 99.8%
- Clean: 0.1%
- Physical-Damage: 0.1%

Result 31: Physical-Damage_Physical (148).jpg

Predicted Class: Physical-Damage
Confidence: 98.0%
Top 3 Classes:
• Physical-Damage: 98.0%
• Dusty: 0.7%
• Bird-drop: 0.4%

Class Probabilities

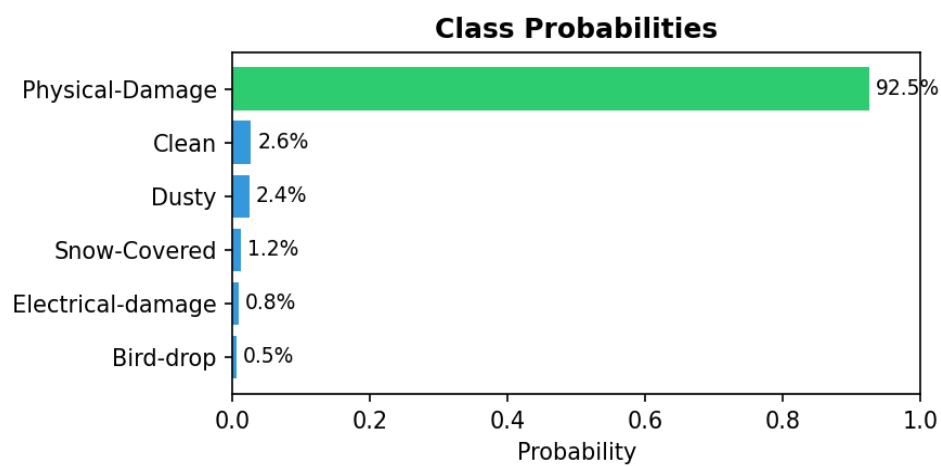| Class	Probability
Physical-Damage	98.0%
Dusty	0.7%
Bird-drop	0.4%
Electrical-damage	0.4%
Clean	0.4%
Snow-Covered	0.1%

Result 32: Physical-Damage_Physical (38).jpg

Predicted Class: Physical-Damage
Confidence: 92.5%
Top 3 Classes:
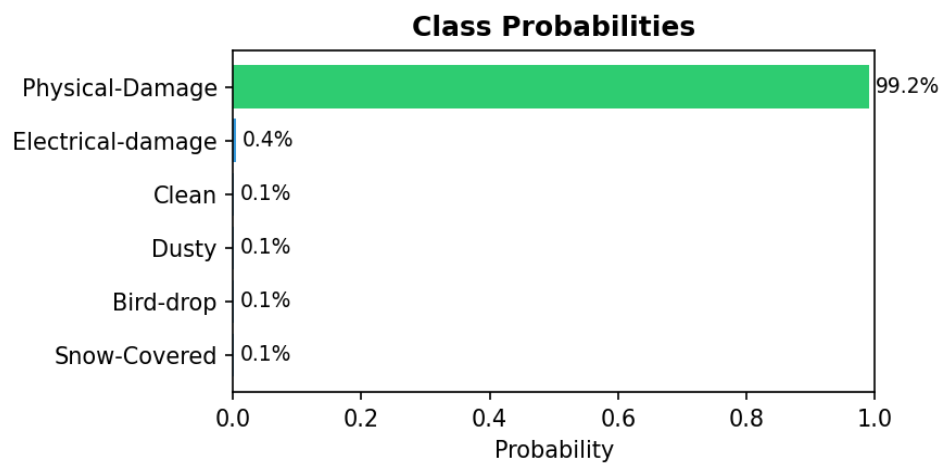- Physical-Damage: 92.5%
- Clean: 2.6%
- Dusty: 2.4%

Class Probabilities

Result 33: Physical-Damage_Physical (54).jpg

Predicted Class: Physical-Damage
Confidence: 99.2%
Top 3 Classes:
  • Physical-Damage: 99.2%
  • Electrical-damage: 0.4%
  • Clean: 0.1%

Class Probabilities

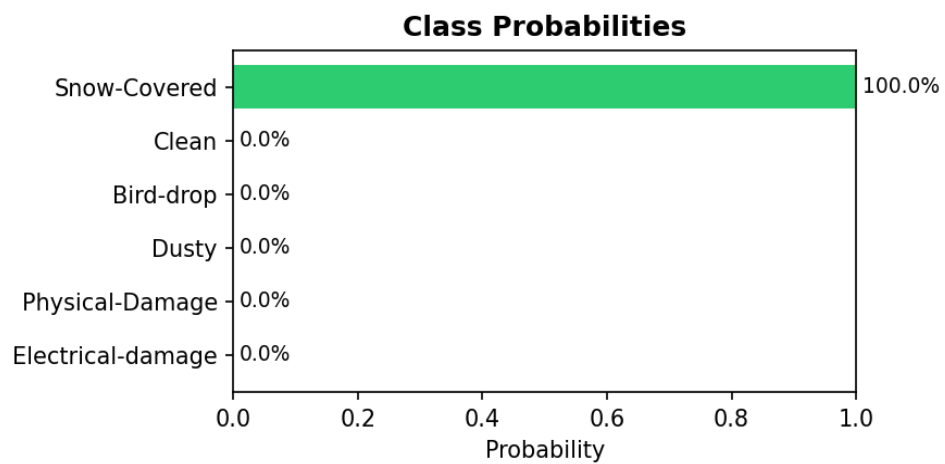| Class	Probability
Physical-Damage	99.2%
Electrical-damage	0.4%
Clean	0.1%
Dusty	0.1%
Bird-drop	0.1%
Snow-Covered	0.1%

Result 34: Snow-Covered_Snow (149).jpg

Predicted Class: Snow-Covered
Confidence: 100.0%
Top 3 Classes:
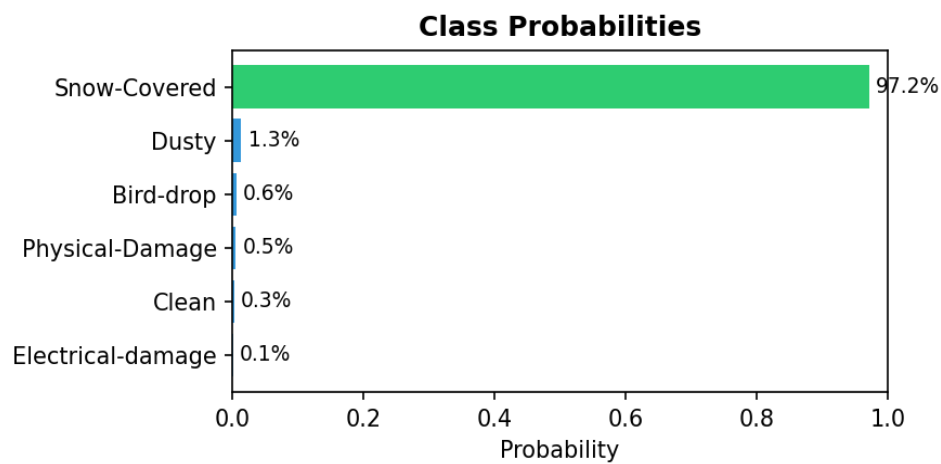- Snow-Covered: 100.0%
- Clean: 0.0%
- Bird-drop: 0.0%

Class Probabilities

Class	Probability
Snow-Covered	100.0%
Clean	0.0%
Bird-drop	0.0%
Dusty	0.0%
Physical-Damage	0.0%
Electrical-damage	0.0%

Result 35: Snow-Covered_Snow (154).jpg

Predicted Class: Snow-Covered
Confidence: 97.2%
Top 3 Classes:
 • Snow-Covered: 97.2%
 • Dusty: 1.3%
 • Bird-drop: 0.6%

Class Probabilities

Result 36: Snow-Covered_Snow (173).jpg

Predicted Class: Snow-Covered
Confidence: 99.7%
Top 3 Classes:
 • Snow-Covered: 99.7%
 • Clean: 0.2%
 • Bird-drop: 0.1%

Class Probabilities

Class	Probability
Snow-Covered	99.7%
Clean	0.2%
Bird-drop	0.1%
Physical-Damage	0.0%
Electrical-damage	0.0%
Dusty	0.0%

SolarVision AI - Automated PV Panel Defect Detection System