V-SOFT DIGITAL

Penn State Computer Vision Defect Detection

Company

Penn State University is a public research university founded in 1855 with campuses and facilities throughout Pennsylvania.

Challenge

The Penn State Department of Manufacturing needed smart manufacturing technologies to automate various process steps at the industrial lab. Traditional manual processes were time consuming and costly. Penn State was looking for an advanced technology option that would save both time and money while maintaining and improving accuracy.

Solution

V-Soft Digital deployed a computer vision system to support automated defect detection on industrial products, as well as automated analysis of these defects and their categorization. The system is able to identify multiple categories of defects, enhance image data acquisition and processing, and capture digital certificates of defect details including location and size.

Result

This solution increased defect detection accuracy by 17%. Repair downtime was reduced by 10% with proactive analysis and manual inspection was eliminated, leading to a $150k savings per production line.

PennState

Reduced Downtime for Repairs — **10%**

Increased Defect Detection Accuracy — **17%**

TECHNOLOGY APPLIED

- ▢ Computer Vision
- ▢ Internet of Things (IoT)
- ▢ GreenGrass
- ▢ Industrial Camera Systems
- ▢ AWS Lambda
- ▢ AWS SageMaker
- ▢ S3 Buckets

aws

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