mindtech

Product Inspection

Mindtech DataOps platform - Training Data Analysis and Synthetic Data creation: Superior AI vision systems through Data Lifecycle Management

Rust

Vimeo-Assembly Line Inspection

Summary

Boost Efficiency and Quality Control with AI Technology

The key challenge in product inspection is the 'known unknown'—being aware that there are scenarios your data doesn't cover, but not knowing exactly what those scenarios are.

Mindtech's Chameleon synthetic data creation platform rapidly creates vast quantities of corner case training data, varying factors such as defects, camera positions, item rotations, lighting and shadows.

The ability of Chameleon to fully randomize the number and location of objects further helps in creating relevant training data.

The data is all fully annotated, making it easy to distinguish between defective and non-defective items.

The combination of Mindtech's Dolphin dataset analysis platform and Chameleon synthetic data creation platform delivers superior AI vision system performance

Mindtech Platform Benefits

- **Simulator can automatically randomize location and distribution of items**

- **Accurate modeling of cameras ensure domain matched data**

- **Accurate annotations lead to accuracy of inspection system**

- **Rapid data creation for up to date systems, combat data-drift and new fault issues**

- **Data analysis sheds light on dataset defects**

Mindtech Quick Facts

- Dolphin - Delivering up to 90% reduction in data costs with improved model performance

- Chameleon - up to 10x faster creation of domain-matched, fully annotated vision images with no IP or privacy issues

- Training-ready data packs - IP-safe, privacy-compliant, domain-specific, images and annotation data for rapid AI vision system development

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