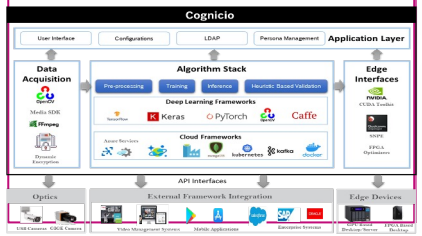
Data and Applied Sciences
Visual Quality Inspection

INTRODUCTION

Developed an AI Powered Computer Vision (Visual Quality Inspection) based solution for quality inspection of an international pharmaceutical and laboratory equipment supplier

- Ability to detect the defects which are 1 mm dimension and above.
- Ability to detect variations and scale up to multiple scenarios



BACKGROUND

- Lack of oversight causing losses due to costly product replacements and product recalls
- Inability to scale up the solution with dynamic quality compliances and product specifications
- High upfront investments required for license + AMC, labor cost and training costs required
- Difficulties in detection defect which are Micro in dimension.

SOLUTION OFFERED

- AI Powered Computer Vision (Visual Quality Inspection) based solution for quality inspection, with algorithms using deep learning technologies, problem-based heuristics and image processing;
- Enabled with scalable training & deployment options

BENEFITS/OUTCOMES

- Eliminated false rejects, rework, manual inspection and human intervention
- Time taken per inspection is less than 5 secs with no Human bottlenecks
- Fewer requirement of high training, labor retention & labor cost.
- Eliminated need of social distancing in production lines

Technology Stack

OpenCV PyTorch kubernetes Azure