

Auto-detection of Defects Functionality for Asian Paints

Niveus has successfully implemented an auto-detection functionality for identifying product defects, significantly accelerating the detection process and enhancing the overall quality of products and services delivered to their customers.

The challenge

Asian Paints was seeking for an automated and scalable Machine Learning (ML) solution to detect defects across a variety of surfaces encountered by their workforce, including painted areas, paint containers, and even paint samples on hands. The primary objective is to explore AutoML solutions in Google Cloud, enabling seamless defect identification without domain-specific expertise or skills.

The solution

After the completion of the Machine Learning Defect Classification Model, the next phase was to productionize the process. To accomplish this, Niveus utilized Google Cloud Registry and Cloud Run to create an API. Buckets were created in Google Cloud Storage to store the images categorized into their respective labeled folders. Our primary model was deployed on the Vertex AI endpoint.

The result

In Phase 1, the AutoML classification model was successfully deployed on the Vertex AI endpoint, achieving an accuracy of approximately 93.4%. In Phase 2, an API was created for this endpoint, enabling seamless integration with their backend system. Vertex AI supports deployments to endpoints that run on managed Google Kubernetes Engine clusters, eliminating the need for manual maintenance.

“ I cannot express enough appreciation to everyone involved for their unwavering support and dedicated efforts in making this project a reality. Your passion for excellence and your ability to collaborate as a team have been instrumental in reaching this point. ”

Nandhini N, Systems manager - Asian Paints Ltd.



About Asian Paints Ltd

Asian Paints is a multinational product manufacturing company, which specializes in manufacturing interior design products for commercial and residential spaces. The company is specifically engaged in the business of manufacturing, selling and distribution of paints, coatings, products related to home decor and providing related services.

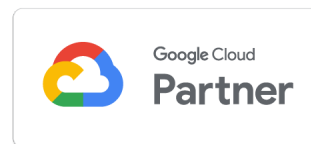
Vertical/horizontal solution: Manufacturing & Industrial

Primary project location: India



About Niveus Solutions Pvt Ltd

Niveus Solutions, a Google Cloud Partner leverages cloud technologies to help enterprises with a range of cloud capabilities and services.



Products

Google Cloud Platform