



Assess



Design & Migrate



Solutions



Manage & Optimize

Computer Vision on Azure



Objective

According to a recent survey published by Deloitte: 93% of the manufacturing companies believe AI will be a crucial technology to drive growth and innovation. Using our Computer Vision solution, you will be able to make a first step toward industry 2.0 by automatizing and computerizing your quality inspection processes.

We offer an asset-based computer vision solution made for visual inspection. It includes a trained Machine Learning model (using your data), the deployment of the model in your infrastructure and a frontend interface. Our pre-developed computer vision setup is using native tools from Azure. Example of deliverables included in the service:

- Computer Vision solution blueprint using Azure components
- State-of-the-art Computer Vision for quality inspection
- Training of models using custom dataset
- Frontend interface for model validation and testing
- Set up of your Azure accounts and VPN access
- Setting up IoT devices or cameras for data collection, data cleaning and proc-processing
- MLOps pipeline for retraining and deployment of the models
- Up-to-your needs features development



Benefits

- ✓ **Low data requirement to train.** Using the 0-shot learning technology, the model only needs a few pictures of “good products” to be trained and then deployed
- ✓ **Automatically detect new defects.** The solution adapts automatically to new defects that have not occurred before
- ✓ **Close to real-time analysis.** The solution can analyze up to 10 frames per second which score is reliable for production line



Features

- **Zero-shot learning.** The model must be trained only on a few examples of “good products”. It will detect then all kind of default without being fed with examples of it. The main benefits of such a technology are the simpleness to train the model as well as the ability of the model to detect automatically all kind of defaults, even the new ones that has not occurred before
- **Low cost and fast training time.** The model can be trained starting with 25 pictures. What it results from it is a very fast training and a minimal CPU consumption