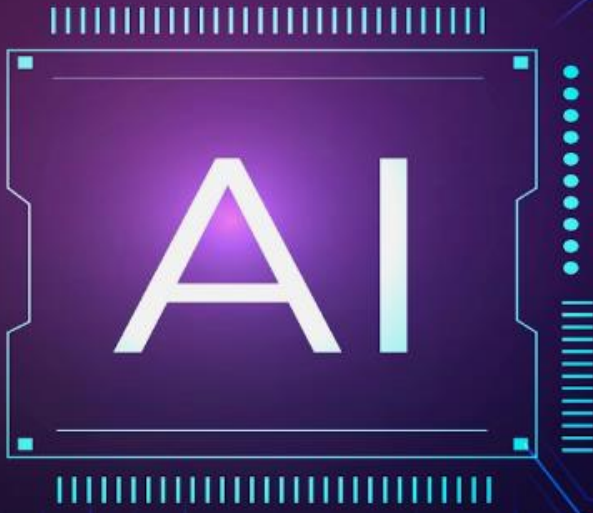
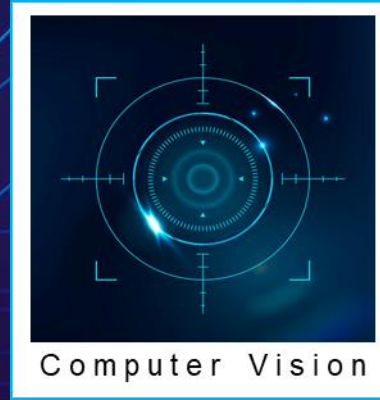




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Case Study

Industrial Pond Surface Anomalies Detection

About the Client

The Client is a large Manufacturing Company in Japan

Business Problem

The Client is a large manufacturing company in Japan. They recycle the water and use it for Industrial purpose. The re-cycled water is deposited into an Industrial pond. The water must be reasonably clean to be used again. The client was hence looking for a solution to automate the surveillance of Industrial Pond located within Industrial premise. The goal was to ensure clean water for re-use. They wanted a system to detect any anomalies (waste e.g. foam, plastics bottles etc) on the water surface. They also wanted to automate the manual inspection process.

Solution

We developed a solution using deep learning models and computer vision to automatically detect anomalies on the industrial pond. The anomalies were Nylon nets, water bottles, cans, foam etc. The water surface anomalies were inspected at varying lighting conditions. The AI Models would continuously analyse the feed coming from the high resolution CCTV camera's installed around the industrial pond and look for the anomaly objects on the camera feed. If anomaly was found, the AI Model would localize the anomaly and raise an email alert along with the picture of anomaly. The AI Model operated with an accuracy of over 90%. It enabled the client to automate the industrial pond surveillance.

Outcome

With the AI Powered solution the Client was not only able to automate the Industrial Pond Manual Surveillance process. With the alerts and evidences generated by the AI Models, the system ensured a clear water in the industrial pond.

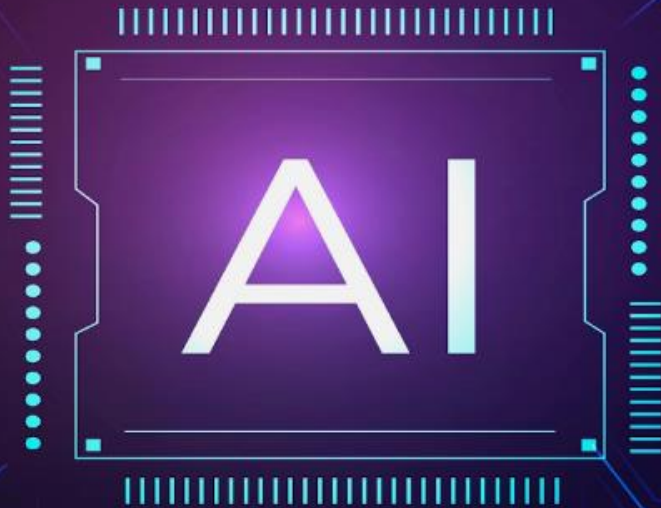
Technology Used

Python, Deep Learning, Object Detection, Classification, Django, RESTful APIs



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