QUALITY ASSURANCE PLAN

Copy-Waste

Quality Assurance Processes

A Quality Assurance (QA) plan will be in place to ensure new versions of project deliverables are adequately tested prior to being released into the production environment. Each deliverable has its own quality assurance process.

1. The dashboard uses a visual QA method which ensures all user-facing material is performing as intended.
2. The bin detector requires manual analysis of the results produced after training to identify if the model is ready to be deployed.
3. The Copy Paste data augmentation pipeline requires verification to ensure that images are being augmented and prepared for detection model training

This process is important as it assures our customers receive the most refined version of our products

Test Plan

Deliverable	Test Cases	Performed By
Green Screen Dashboard	1. Login to the dashboard to confirm user authentication 2. Ensure the map has waste collection regions displayed 3. Ensure all panels are displaying data and are coloured accordingly 4. Click on all regions on the map to ensure users are redirected to the right collection day 5, Ensure the Pie chart is loaded and the count of each contaminant is accessible through hovering 6. Click the Green Screen button	Rishabh, Nolan
Universal Bin Detector	1. Ensure model is produced from new training job 2. Run model against a sample of test images to ensure it is accurately detecting all recycling bins 3. Review produced metrics to verify the model's performance	Nolan, Will

Copy-Paste Data Augmentation Pipeline	1. Ensure all pyTests are passing 2. Run an augmentation job 3. Ensure images are imported 4. Verify images are augmented 5. Ensure that Augmented images are uploaded to its associated Amazon S3 Bucket. 6. Review the error log file to ensure there are no alarming failures	Will, Rishabh