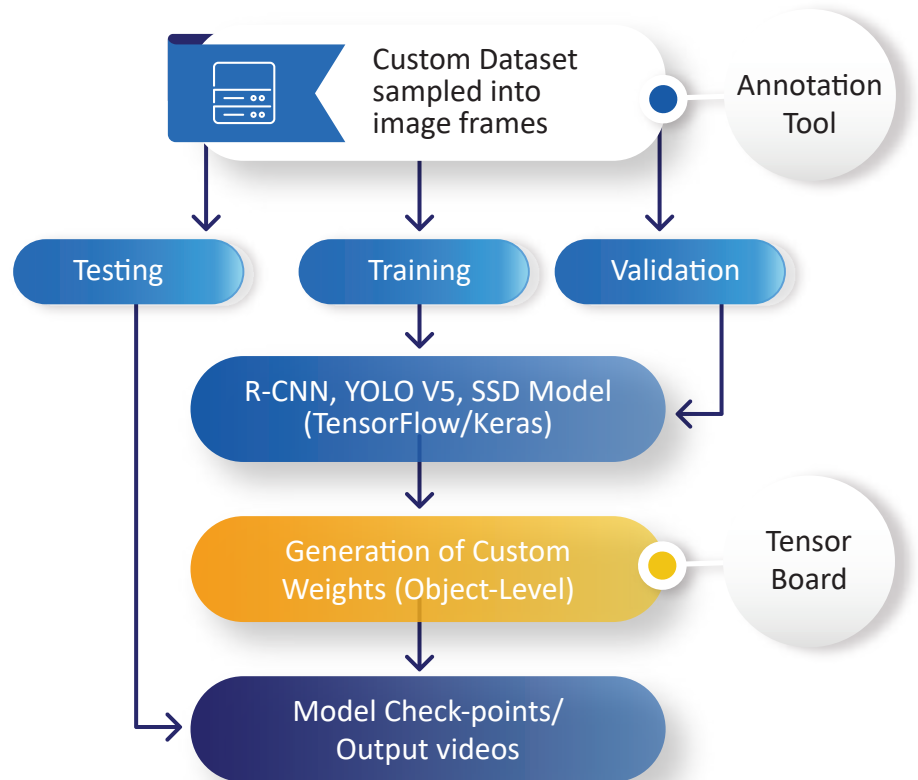




TCG DIGITAL

Custom Object Detection and Object Tracking on Video Data

Custom Object Detection workflow in tcg mcube



Evaluation Metrics:

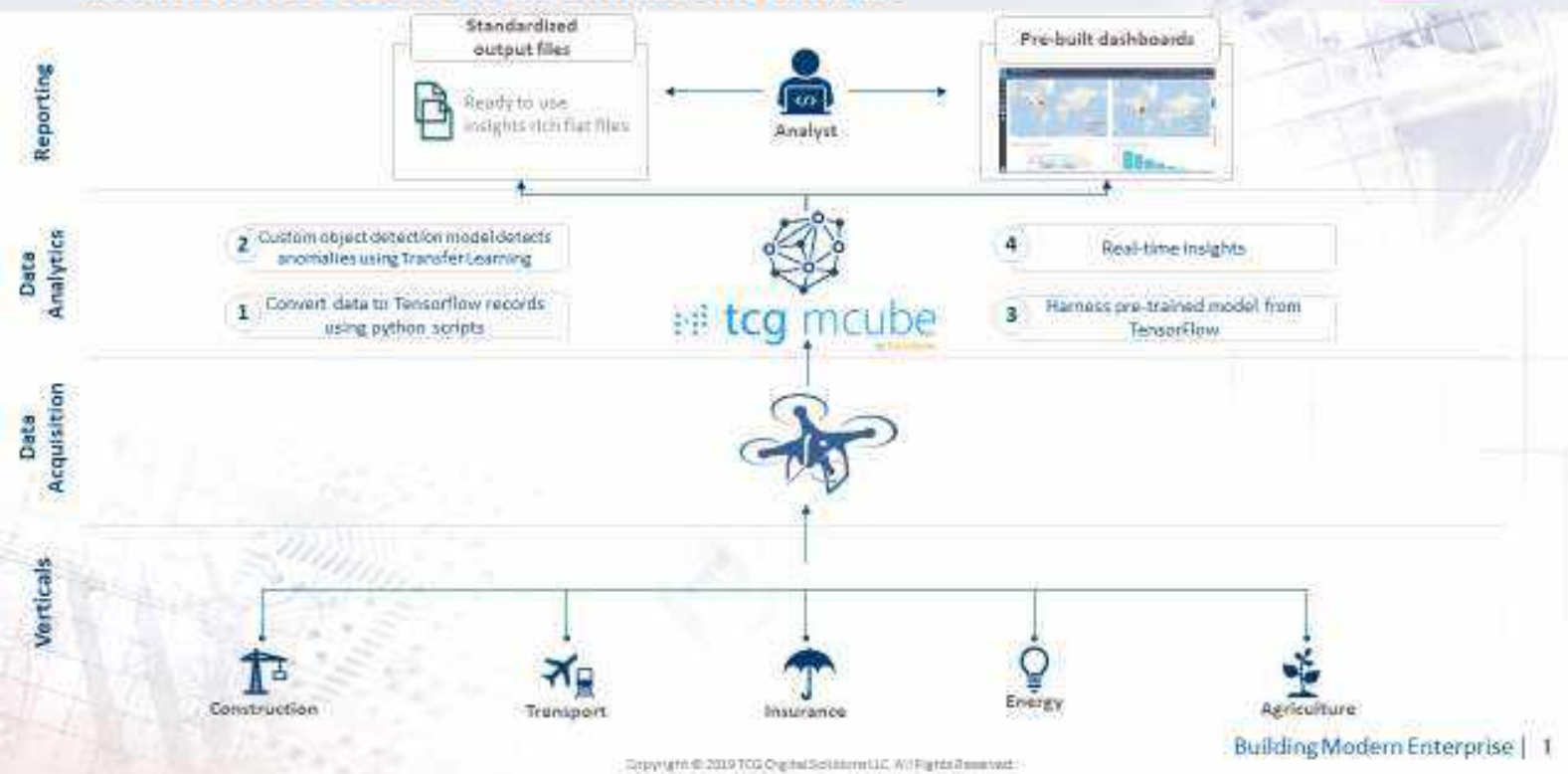
The performance of a custom object detection and tracking model can be evaluated using metrics such as precision, recall, and the F1 score. Precision measures the percentage of correctly detected objects among all detected objects. Recall measures the percentage of correctly detected objects among all ground-truth objects. The F1 score is the harmonic mean of precision and recall.



Case Study:

A custom object detection and tracking model is used for anomaly detection in videos for a drone services company. It can be trained to track damage and maintain solar farms automatically using drone videos. It is also used for agricultural field monitoring and crop maintenance.

Increase velocity to value for a Drone Co. through faster & accurate detection of anomalies in images



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Conclusion

Custom object detection and tracking models are essential for addressing the limitations of pre-trained models in specific use cases. This white paper throws light on custom object detection and tracking in video, covering the fundamental concepts, the process of building a custom model, a case study, and evaluation metrics. Building custom models involves data collection and annotation, model selection, and training. Transfer learning and data augmentation techniques can be used to improve the accuracy and robustness of the model. The case study demonstrates the effectiveness of custom object detection and tracking in anomaly detection on drone video.

