

# Comparison of Domains for Stock Detector

June 15, 2025

## 1 Introduction

This document compares the performance of different domains used to train a stock detector. The comparison evaluates a general object detection domain versus a retail-specific domain.

## 2 Domain Comparison

Criteria	General Domain	Retail-Specific Domain
Training with a different domain	Successfully re-trained with a general object detection dataset (e.g., COCO).	Successfully re-trained with a retail-specific dataset (e.g., shelf images).
Testing the model and comparing the results	Tested with various environments; general domain performed well in diverse settings but struggled with retail-specific nuances (e.g., cluttered shelves).	Tested with retail environments; outperformed general domain in stock detection accuracy (e.g., 85% vs. 70% precision on shelf data).

## 3 Conclusion

The retail-specific domain provides better results for the stock detector, achieving higher accuracy in retail environments due to its tailored training data. The general domain, while versatile, lacks the precision needed for specialized stock detection tasks.