

Bachelor's Thesis

# Reverse Synthesis for Object Detection Failure Prediction

Bounding boxes proposed by object detection networks do not always contain the classified object. In this work, a prediction method for such failures is investigated. The idea is based on reverse synthesis: Using the predicted class and the proposed bound box, an autoencoder is trained for each class to reconstruct the input image patch. If the bounding box does not contain the predicted class, the reconstructed image ideally contains traces of the imagined or misclassified object which can then be detected.

## Prerequisites

Basic knowledge of deep learning and Linux

## Advisors

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