CV Project Proposal

马逸川 520030910393
温海林 520030910396
高志远 520030910348
林沛然 520030910400

日期：2022/10/3

1 Definition

We choose Anomaly Segmentation as our project theme. In recent studies, owing to to their high accuracy in comparison, Neural networks have become the preferred methodology for classification, object detection, and semantic segmentation. However, while performing well in datasets of certain size, they usually fail to give a satisfying result when given unseen inputs. The target of our work is to propose a framework that detects the segment out the OOD objects of the given model.Since we are now getting familiar with the task, the task assignment of our group members has not been identified yet.

2 Details

2.1 Introduction

We plan to read and try to reproduce the models in the papers first, and then further improve its performance by adding innovations. So far, we are reading the following papers and their repositories. Our target next week is to get familiar with the datasets and the models, and to figure out a grouping scheme after all our members are familiar with our task.

2.2 References

1. Giancarlo Di Biase, Hermann Blum, Roland Siegwart, and Cesar Cadena. Pixel-wise anomaly detection in complex driving scenes. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pages 16918–16927, 2021.
2. Xia Yingda, Zhang Yi, Liu Fengze, Shen Wei, and Yuille Alan. Synthesize then compare: Detecting failures and anomalies for semantic segmentation. In Proceedings of the European Conference on Computer Vision (ECCV), 2020.

2.3 Dataset

1. FishScapes