Paper Project

Report #1

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# Project Topic Overview

Computer vision and AI in Agruculture has been so popular nowadays.

In this Project, we will be focusing on radish detection and segmantation and classification about it’s health from UAV pictures. In our literature review, the article published in 2020, the same dataset we will use is used.

In the article, the manually done segmentation of pictures has been used. They have classified the rabish into three categories regarding to its health. To do that, they have used machine learning algorithms such as decision three, sift algorithm, fuzzy reinforcement and etc. So we will use some different techniques and add novelty on top of this article.

# Method

We will train radish datas taken from UAV. In the paper we found, we have seen that they have done the segmentation manually. So, as our fashion statement, we will do the segmentation using deep learning. Plus, we plan to use a few of deep learning models such as mask rcnn, fast rcnn, faster cnn and figure out which one is best.

# Tasks Done

(Explain clearly who did which parts)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Orhan (%) | Hasan (%) | Complete (%) | Weight of the task (%) |  |
| Task 1 | 50 | 50 | 100 | 25 | Searching for possible project ideas |
| Task 2 | 50 | 50 | 100 | 25 | Looking for and deciding on a dataset |
| Task 3 | 50 | 50 | 30 | 35 | Finding a working method and run it |
| Task 4 | 100 | 0 | 100 | 15 | Writing the report |
|  |  |  |  |  |  |

**Task 1:** The first idea was classification of handwritten digits. We wanted to determine the digits that are handwritten, then as a novelty, We wanted to classify and match the handwritten digits with the person who has written it. There were many datasets for handwritten digits but the problem was that they do not include the labelling of person inside of the datasets (at least I couldn’t find if there is). Then, the idea of tattoo detection came to the mind. We specify it to the animal tattoos. But when I searched it, I saw that the idea I plan to do has already been done. Then, classifying different instruments was my other idea. I also find a good dataset for it. However, after we talked with my tutor, we have come to the conclusion that there will be no real usage of doing such a Project.

**Task 2:** First of all, I tried to find good datasets with many datas in it, then I wanted to elimination among them depending on how much it is used and what more research and work I can put to them.

**Task 3:**

**Task 4:**

**Other things that we did:** …

**What we have learned: ...**

# Plan: Tasks to be Done

(Explain clearly who will do which parts)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Pınar (%) | Kagan (%) | Complete (%) |  |
| Task 1 | 100 | 0 | 0 | ... |
| Task 2 | 0 | 100 | 0 | ... |
| Task 3 | 50 | 50 | 0 | ... |