Plant Seedlings Classification

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Abstract. The abstract should briefly summarize the contents of the paper in 150–250 words.

Keywords: First keyword · Second keyword · Another keyword.

1   Introduction

The demand for agricultural products is increasing day by day, as the population of the Earth is growing. Even though people are working on plant classification algorithms, approaches are still not as robust as desired. A significant part of work has still been done by people. The question arises of the efficiency with which human resources are used. We will use exhaustible natural resources wisely and increase harvests if we will automatise quality assurance, which objectives are to detect and distinguish weeds among the variety of crop seedlings.

All this naturally leads to idea of automation of the classification process with help of machine learning algorithms. From recent experience, neural networks are well suited for image processing, but we have to pay for it with computational costs. On the other hand, we could use less costly algorithms, but they require finer tuning to achieve a comparable result.

The goal is to implement segmentation and classification of a specific type of data set for low time and computational complexity. In this paper we will research binary classifiers capabilities on the dataset [1] consisting of images of 12 species and containing the most common weed species in Danish agriculture.

2 Plant Seedlings Classification

2.1 Data

2.2 Data preprocessing

2.3 Feature selection?

2.4 Classification

3 Results

4 Discussion

5 Conclusion

6 Acknowledgments?

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