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Patent Search

Invention Title	Method and System for Real-Time Image Recognition and Classification using Deep Learning and Artificial Intelligence
Publication Number	18/2023
Publication Date	05/05/2023
Publication Type	INA
Application Number	202341029522
Application Filing Date	24/04/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06K 096200, G06N 030400, G06N 030800, G06N 070000, G06N 200000

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Abstract:

The proposed invention is a system for sorting produce using machine vision and machine learning algorithms. The system comprises a conveyor system for transport produce, at least one camera for capturing images of the produce, and a machine learning algorithm for analyzing the images and sorting the produce based on pre-set criteria. The system has the potential to significantly improve the efficiency and sustainability of the production process for fresh produce and other small items, lead reduced labor costs, improved worker safety, and increased overall efficiency. The invention can also provide valuable data to producers about the quality and characteristics of their produce, allowing for more informed decision-making in the production process. The system can be customized to meet the specific needs of different produce products, and is capable of sorting produce into multiple categories based on different characteristics. Overall, the proposed invention has significant potential to revolutionize the way produce is sorted and packaged, leading to increased efficiency and sustainability in the agriculture industry.

Complete Specification

Description: The proposed invention related to the Automated System for Sorting and Packaging of Fresh Produce Using Machine Learning and Computer Vision.

Background of the invention:

The production and distribution of fresh produce involves several complex processes that require significant amounts of time, labor, and resources. One of the critical in this process is the sorting and packaging of produce, which can be a challenging and time-consuming task. Traditional sorting and packaging systems rely on manual labor, which is not only labor-intensive but also prone to human error. Moreover, these systems can be slow and may not be able to meet the demands of high-volume production facilities.

To address these challenges, there is a need for an automated system that can sort and package fresh produce accurately, efficiently, and cost-effectively. Such a system would need to be capable of handling a wide variety of produce, including fruits and vegetables of different shapes, sizes, and colors. It would also need to be flexible and customizable to accommodate different production requirements.

Recent advances in machine learning and computer vision have made it possible to develop automated sorting and packaging systems that can identify and classify produce accurately and quickly. These systems use cameras and sensors to capture images of the produce, which are then analyzed using machine learning algorithms to identify the type, size, and quality of the produce. Based on this information, the system can sort the produce into different categories and packages, thus streamlining the production process and reducing labor costs.

Several automated sorting and packaging systems using machine learning and computer vision have been developed in recent years. For example, a system developed by Google uses machine learning algorithms to sort and classify different types of produce based on their visual characteristics. The system is capable of identifying and

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Page last updated on: 26/06/2019