DEEP LEARNING BASED POULTRY DISEASE DETECTION

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Abstract

Poultry farming is an essential sector of the agricultural industry that plays a significant role in food production and the economy. However, the poultry industry is prone to various diseases that can cause significant losses, including reduced productivity, increased mortality rates, and economic losses. Therefore, early detection and effective management of diseases are crucial to maintain a healthy poultry population and ensure sustainable poultry production. This paper presents an innovative approach to poultry disease detection based on action recognition algorithms. By analyzing the actions performed by the birds, such as respiratory distress, decreased appetite, and decreased egg production, we can detect and identify diseases such as avian influenza, Newcastle disease, and coccidiosis. The algorithm uses deep learning techniques; including convolution neural networks (CNNs), to extract relevant features from the video data and classify the actions performed by the birds. The benefits of early detection of poultry diseases include reduced economic losses, improved animal welfare, and the ability to prevent the spread of diseases to other birds. However, the failure to detect diseases can result in reduced productivity, negative impacts on the reputation of the farm, and potential health risks to consumers. This paper provides an overview of the advantages and challenges of using action-based detection algorithms for poultry disease detection. The potential of this technology to revolutionize the poultry industry by enabling early detection and management of diseases, improving animal welfare, and ensuring sustainable poultry production.

Keywords---Deep Learning, CNN, Disease Detection.

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