Computer Vision Application to Recognize Pig Ingredients in The Food That Is Written in The Food Composition on The Package

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ABSTRACT

Packaged foods provide information about the composition of the food. Some of the food in circulation does not only come from Indonesia but there are several foods that come from various countries, so the officers of the Food and Drug Supervisory Agency (BPOM) in carrying out their duties must supervise and examine the composition of the food one by one. In the composition there are several food ingredients written with a certain code so that it is difficult to determine whether the food ingredients come from pigs or not. To solve this problem, an Android-based Computer Vision application was created using the Firebase Machine Learning Kit (MLKit) text recognition with the addition of the Cosine Similarity and Levenshtein methods. From the test results, the Levenshtein method achieves an average accuracy of 70%, a precision of 68% and a recall of 75%. Meanwhile, the Cosine Similarity method has an average accuracy value of 62.5%, precision of 63.5%, recall of 55%. It is hoped that the application can help make it easier for BPOM officers to check the composition of food, especially foods containing pork.

Keywords: Firebase Machine Learning Kit (MLKit), Pengenalan Teks, Cosine Similarity, Levenshtein