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| Title | A Real-Time Junk Food Recognition System Based on Machine Learning | | |
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| Published Journal Name | International Conference on Bangabandhu and Digital Bangladesh | | |
| Type of Publication | Conference Paper | | |
| Volume |  | Issue |  |
| Publisher |  | | |
| Publication Date |  | | |
| ISSN |  | | |
| DOI | https://doi.org/10.1007/978-3-031-17181-9\_8 | | |
| URL |  | | |
| Other Related Info. |  | | |
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| Abstract |  |
| As a result of bad eating habits, humanity may be destroyed. People are constantly on the lookout for tasty foods, with junk foods being the most common source. As a consequence, our eating patterns are shifting, and we’re gravitating toward junk food more than ever, which is bad for our health and increases our risk of acquiring health problems. Machine learning principles are applied in every aspect of our lives, and one of them is object recognition via image processing. However, because foods vary in nature, this procedure is crucial, and traditional methods like ANN, SVM, KNN, PLS etc., will result in a low accuracy rate. All of these issues were defeated by the Deep Neural Network. In this work, we created a fresh dataset of 10,000 data points from 20 junk food classifications to try to recognize junk foods. All of the data in the data set was gathered using the Google search engine, which is thought to be one-of-a-kind in every way. The goal was achieved using Convolution Neural Network (CNN) technology, which is well-known for image processing. We achieved a 98.05% accuracy rate throughout the research, which was satisfactory. In addition, we conducted a test based on a real-life event, and the outcome was extraordinary. Our goal is to advance this research to the next level, so that it may be applied to a future study. Our ultimate goal is to create a system that would encourage people to avoid eating junk food and to be health-conscious. | |