Malaria Detection using Machine Learning

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Abstract: *Malaria is a major issue in the hot and mild regions, due to malaria thousands of people lose their lives every year. In 2021, it was found that about 274 million people were affected by malaria and approx 6,27,000 people lost their lives due to bites of Anopheles mosquitoes. This is caused by Plasmodium parasites, which have only a single cell. And most of the cases were found in Africa because Africa is less economically developed and there is a lack of medical facilities like the lack of a microscope for testing the blood swear and a lack of medicine. So it required a well-trained microscopic person who had to count the number of parasites present in the RBC in the blood sample. So there is always a chance of human error to overcome this problem, reduce human error, and increase the test speed. We can use machine learning that needs to be well-trained on whether the blood cells are parasitized or not. to discover that we should use a convolution neural network (CNN). We used various machine learning strategies like image, and map detection features. We will be going to embed our well-trained model in a Simple Board Computer(SBC), which is affordable and can be used in Developing Countries for detecting malaria.*

Keywords: CNN, Machine Learning, SBC, RBC, Parasitized, Auto-encoder

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