Predicting Epileptic Seizures Using an Android™ Application

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Epilepsy afflicts 50 million people worldwide, and any type of seizure has the potential to be dangerous, especially if the victim is unprepared. Epileptic patients need an easy and convenient way to predict seizure events so that they have sufficient time to prepare. We developed an Android™ application in order to address this need. The app reads and analyzes electroencephalogram (EEG) data, and then graphs and measures the dissimilarity between the baseline and current data. After analysis, the program informs the patient whether a seizure event has been predicted. It accurately predicts whether or not a seizure will occur 58/60 cases, or 45/60 cases if the precision of the data is halved in order to save memory. The app will benefit patients, doctors, and insurance companies. It can potentially be modified to work on an iPhone© or on cheaper handheld devices for children or developing countries, where the vast majority of epileptic patients have no access to treatment.

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