My findings

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I used an SVM model, titled, ‘EatingDetectionSVM.ipynb’ to classify whether a set of data points in each time window refers to eating movement. The data is captured from a wearable device, gathering data at 20 mHz a second, and the time windows are 5 and 10 seconds. The model performs well, with an accuracy of 87%, a precision value of 0.7031, or 70.31 %. A recall score of 0.957, or 95.757% and an F1 score of 0.82917. Twelve features were engineered from the dataset, using statistical and mathematical analysis, and these features were then passed through the classification network. Using feature engineering considerably reduced the amount of data points, the initial dataset length was divided by the size of each sliding window.