Mobile and Wearable Computing

Assignment 04

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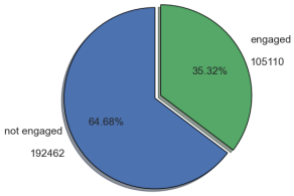
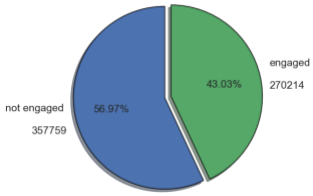
Repository:

https://github.com/dadegrande99/AssignmentsMWC_Grandesso/tree/master/Assignment04

Exercise 0 – Re-run Tutorial Code

		example_data.csv	assignment_data.csv
Engagement's Distribution			
Samples		297.572	627.973
5-fold	XGBClassifier	57.47 ± 5.54 %	50.68 ± 4.87 %
	DummyClassifier	48.85 ± 0.84 %	50.39 ± 0.38 %
Leave One User Out	XGBClassifier	45.27 ± 23.23 %	42.35 ± 16.80 %
	DummyClassifier	49.95 ± 1.04 %	49.77 ± 1.05 %

It can be seen that the assignment data are more than twice as large as the example data and are also more balanced, which leads us to think that random approaches may have better results than the example data.

We observe that on the assignment results we have an improvement on the standard deviation in that it is generally lower than the example data we therefore have more consistent validation scores. For both 5-fold and Leave One User Out cross validation there are deteriorations for XGBClassifier, instead for DummyClassifier there is an improvement in 5-fold cross validation and a deterioration in Leave One User Out cross validation

Exercise 1 – Leave One Day (per user) Out

Exercise 2 – Statistical test on results

Exercise 3 – More models