The features concatenation analysis. And scalable unsupervised approach for their extraction.

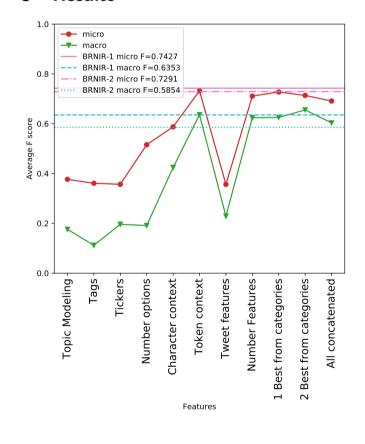
BRNIR at the NTCIR-14 finnum task: Scalable feature extraction technique for number classification

Alan Spark

1 Tweet features

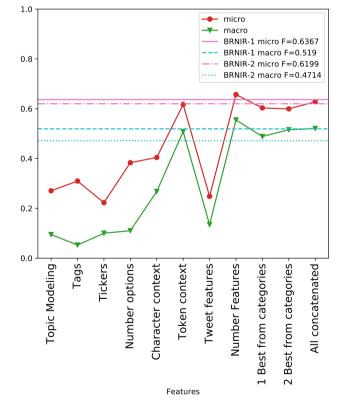
- Topic distribution
- Tickers
- Tags

3 Results



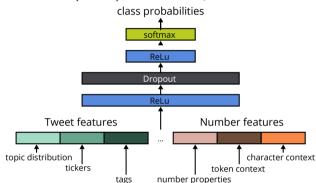
2 Number features

- Number properties
- Token context
- Character context



Experiment

During experiment the classification model was fixed. First layer of a network (input), succeeded by layers of fully connected Rectified Linear Units (ReLU) with a dropout in between.



Network structure follows a typical scheme - every succeeding layer diminishes in size by half, the last "output" layer sized accordingly to the number of classes in a task:

Subtask 1: 512 ReLU \rightarrow 256 ReLU \rightarrow 7 SoftMax Subtask 2: 512 ReLU \rightarrow 256 ReLU \rightarrow 17 SoftMax



