Stratification and categorisation, for South African and global COVID19 social media text data.

Using machine learning and Natural processing methods to extract text features for categorisation, classification and detection.

INTRO

- Using statistical sampling techniques for classifications and micro-blog bots usage detection
- Feature engineering methods are also explored to detect micro-blog location base.

METHODS

1. The data-set used was collected by the team at University of Pretoria and partners.
2. About 1 million data input row and 117 columns data sample was provided.
3. **Feature selection:** TF-IDF vectorization
4. **Classification:** CNN, Logistic regression and Naive beyes classifier.

RESULTS

Location based text classification

- CNN – 0.988
- Logistic regression: 0.990

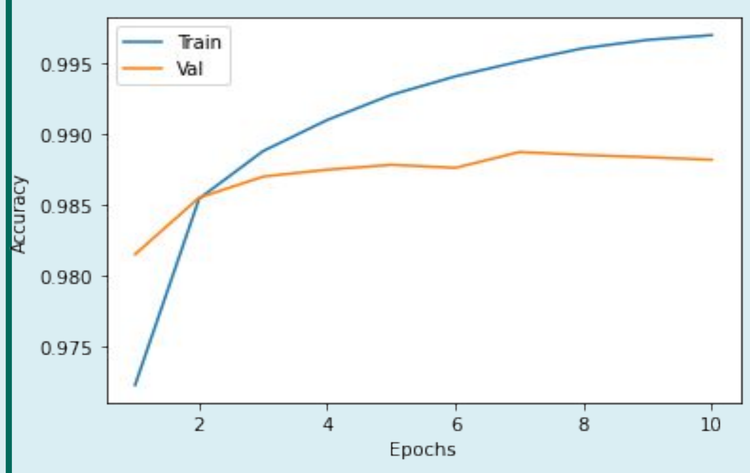
Bots detection and classification

- CNN – 0.872
- Logistic regression- 0.881

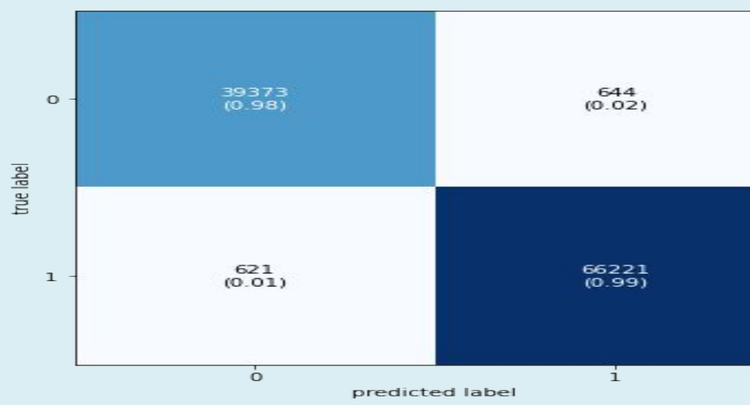
Sentiments analysis

- Logistic regression- 0.930
- CNN – 0.900

CNN model evaluations



Naive bayes classifier evaluations



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Capstone Project - MIT 808

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