Cost Estimation of Spam Call detection

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Description

Spam calls are now a daily part of our life. Many times we choose not to answer unknown number because we are so sure of it being of an imposter claiming to be Nigerian prince and offering us a part of his treasure, which is hilarious because Nigeria is a republic and has no prince.

Hiya, provider of a spam monitoring service app, based on an analysis of its one-month data, found that each of its app users reported an average of 10 unwanted robocalls [1]. Another report published in the Washington Post said Americans got 26.3 billion robocalls in the year 2018 [2].

Scam calls are mostly done to steal money. One of every 10 US adults was victimised by a phone scam in the year 2018, with an average loss of $357 per victim [3]. Almost all of the mobile carriers are now coming up with some or the other measure for spam protection. One such approach uses Machine Learning to prevent malicious calls [4] . This is done by collecting a large scale call-log database and then model an efficient machine learning algorithm to identify scam calls.

In this study, a cost estimate for the application of this technique in telecom industry is done. The cost estimate includes cost for all the necessary processes, namely data-collection, data-processing, exploratory data analysis, data modelling and report generation.

Datasets

- Data – Scientist pay per hour, data compiled by ZipRecruiter [5]
- The cost estimate for this project depends mainly on the number of hours the project would go on, all this analysis for number of hours required for this project can be extracted from [4].
- Equipment costs, can be extracted from Amazon.

Schedule

- Deciding basis of cost estimation   Sep 16 – Sep 25
- Analysis of time requirement for each processes Sep 26 – Oct 15
- Cost data collection for various processes Oct 16 – Nov 5
- Final cost estimation & verification Nov 6 – Dec 10

References

[1] Based on report put forward by Hiya, compiled by Washington post.

[2] Report compiled by Washington Post

{ https://www.washingtonpost.com/technology/2019/01/29/report-americans-got-billion-robocalls-last-year-up-percent/?arc404=true&noredirect=on }

[3] Truecaller Blog

{ https://truecaller.blog/2018/04/26/truecaller-insights-usa-2018/ }

[4] A machine Learning approach to prevent malicious calls over telephony networks

{https://arxiv.org/pdf/1804.02566.pdf }