Information Retrieval System for Malwares

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ABSTRACT

In this paper, we describe the problems that arise when building a malware retrieval system, and how to solve them. Multilabel Weighted Centerloss(MWC) is proposed to learn semantic distances between malware samples. Also we visualize the embedding vectors of malware samples and show the retrieval results to prove the synchronization between our perception of malwares and learned embedding space.

CCS CONCEPTS

Security and privacy → Malware and its mitigation;

KEYWORDS

template; formatting; pickling

1 INTRODUCTION

This is a sample! It does not have a lot of fancy stuff in it, but if you want to see a more complex sample, look at the original ACM templates.

To fill up enough text to fill up 3 pages, we've included the CCS Call for Papers three times. It is always a good idea to include some gratuitious citations to recent CCS papers [????].

2 CALL FOR PAPERS

The conference seeks submissions presenting novel research results in all aspects of computer and communications security and privacy, including both practical and theoretical contributions.

2.1 Paper Submission Information

Submissions must be received at https://ccs17.hotcrp.com/by the strict deadline of 19 May 2017 at 8:59 PM PDT (UTC-7). Submitted papers must not substantially overlap with papers that have been published or that are simultaneously submitted to a journal, conference, or workshop. Submissions must be anonymized and avoid obvious self-references.

CCS has traditionally required that authors submitting papers guarantee that an author will be able to present their paper at the conference. We recognize, however, that the current travel restrictions and screening processes may make it impossible or uncomfortable for some authors to travel to the conference. The venue for CCS 2017 was selected several years ago, and we do not wish to exclude any potential authors who may have difficulty traveling due to recent changes in US immigration practices. CCS welcomes submissions by authors of all nationalities, and will make allowances for presenting papers electronically or with non-author presenters in cases where paper authors are unable to travel to the United States.

Submissions will be evaluated based on their scientific merit, novelty, importance, presentation quality, and relevance to computer and communications security and privacy. If a paper includes work that raises ethical concerns it is up to the authors to convince the reviewers that appropriate practices were followed to minimize possible harm and that any harm caused by the work is greatly outweighed by its benefits. The review process will be carried out in two phases and authors will have an opportunity to provide a length-limited response to the first-phase reviews.

2.2 Paper Format

Submissions must be single PDF files containing at most 12 pages in the required new ACM format (see https://www.sigsac.org/ccs2017/format for details and templates, which you have presumably found if you are reading this!) of body content, with any number of additional pages for the bibliography, well-marked appendices, and any desired supplementary material. When relevant, submitters may include reviews from past submissions and responses to them in the supplementary material.

Reviewers are not required to consider the appendices or supplementary material, however, so submissions need to be intelligible and convincing without them. Submissions not meeting these guidelines, or playing games to work around page limits, will be rejected by the PC chairs without review. In particular, papers should not use squeezing tricks to adjust the (already very dense) ACM paper format, and moving discussion of key related work or important definitions to appendices may be grounds for rejection.

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5 CONCLUSIONS

In conclusion, it is rarely a good idea to include the same section three times in a paper, or to have a conclusion that does not conclude.

A LOCATION

Note that in the new ACM style, the Appendices come before the References.

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