**Individual Report**

**Member name:** [Sangeeth Santhosh](mailto:ssantho9@asu.edu)

**Evaluated by:** [Justin Young](mailto:jtyoun15@asu.edu)[Gautham Vijayaraj](mailto:gvijaya6@asu.edu)

**Date:** 09/10/23

**Tasks Assigned:**

* Preparing and evaluating individual progress reports.
* Preparing and evaluating individual in-depth reports.
* Performing the literature review of research papers assigned.
* Preparation of an in-depth report of one research paper among the research papers found - ‘A new approach for the detection and analysis of phishing in social networks : the case of Twitter’

**Summary:**

* Reviewed the research paper ‘A new approach for the detection and analysis of phishing in social networks : the case of Twitter’.
* This paper proposes a three step approach to detect and analyze phishing in Twitter.
* The steps in this approach are - Verification of URL occurrence in database of malicious URLs (Blacklisting), Classification of URLs using supervised machine learning and User Analysis Mechanism.
* As this paper deals only with blacklisted data, integrity of honest users is not compromised and only suspicious users are taken into account.
* The three step approach is tested using different machine learning algorithms, mainly Random Forest, Support Vector Machine and Logistic Regression.
* Among these methods, for the prediction of malicious users, the highest accuracy of 74.96% is achieved for Random Forest Classifier.
* Similarly, for prediction, the highest precision value of 95.51% is achieved for Random Forest.
* The approach is successfully tested on Twitter by posting phishing URLs and recording the result of each prediction.

**Outcome:**

False negatives are minimized by using the three step approach proposed in the research paper.

**References** *(with citation)*

[35] K. A. Djaballah, K. Boukhalfa, Z. Ghalem and O. Boukerma, "A new approach for the detection and analysis of phishing in social networks: the case of Twitter," *2020 Seventh International Conference on Social Networks Analysis, Management and Security (SNAMS)*, Paris, France, 2020, pp. 1-8

**Evaluation of Report  
  
Evaluation by:** [Justin Young](mailto:jtyoun15@asu.edu) **Date: 9/11/23**

**Is the weekly member report complete with all the major result(s) of the paper(s)? If not, provide as many examples of the major result(s) missing in the written report as possible. (in bullet form). [within 100 words]**

* Yes, all major results are covered.

**Is each section of the guidelines sufficiently completed? If not, point out what is missing. [Normally within 40 words].**

Yes, all sections of the guidelines were followed.

**Is the quality of this version of the written report satisfactory? If not, then why not? [Normally within 40 words]**

Yes, the quality of the report is clear, concise and satisfactory.

**Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date: 9/11/23**