**Individual Report**

**Member name:** [Yeshwanth Reddy Chennur](mailto:ychennur@asu.edu)

**Evaluated by:** [Avani Mundra](mailto:amudra@asu.edu)[Gautham Vijayaraj](mailto:gvijaya6@asu.edu)

**Date:** Sep 4, 2023

**Tasks Assigned:**

* Found 5 research papers on our project topic, “Detection of Suspicious Activities on Social Media Using Data Mining and Machine Learning”.
* Done Literature review and prepared Project scope for the Project plan.
* Finished reading the research paper “Towards automated real-time detection of misinformation on Twitter,". An in-depth report has been prepared on this paper.
* Evaluated Justin Young's individual and in-depth report for the most recent week.

**Summary:**

* In my assigned tasks, I conducted a comprehensive literature review on the topic of "Detection of Suspicious Activities on Social Media Using Data Mining and Machine Learning."
* This involved identifying and reviewing five relevant research papers in the field. Additionally, I contributed to defining the project scope for our Project plan, ensuring clear objectives and boundaries.
* As a further incentive, I went in-depth with one of the chosen research papers, specifically "Towards automated real-time detection of misinformation on Twitter."
* I thoroughly analyzed and summarized the major conclusions and methodology offered in the study to create an in-depth analysis that emphasizes the importance of automated real-time detection in tackling false information on social media.
* These tasks collectively contribute to our project's foundation by providing a strong theoretical background and insights into related work for detecting suspicious activities on social media using data mining and machine learning techniques.

**Outcome:**

* This paper includes a comprehensive understanding of the techniques employed, such as Natural Language Processing (NLP), sentiment analysis, and data mining, to detect misinformation. It also encompasses insights into the significance of real-time detection and its potential application in addressing the challenges posed by misinformation on social media.

**References:**

[1] G. Rathee, S. Garg, G. Kaddoum, D. N. K. Jayakody, M. J. Piran and G. Muhammad, "A Trusted Social Network Using Hypothetical Mathematical Model and Decision- Based Scheme," in *IEEE Access*, vol. 9, pp. 4223-4232, 2021, doi: 10.1109/ACCESS.2020.3048077.

[2] Q. Liu, P. Li, W. Zhao, W. Cai, S. Yu and V. C. M. Leung, "A Survey on Security Threats and Defensive Techniques of Machine Learning: A Data Driven View," in *IEEE Access*, vol. 6, pp. 12103-12117, 2018, doi: 10.1109/ACCESS.2018.2805680.

[3] Ravneet Kaur, Sarbjeet Singh. "A survey of data mining and social network analysis based anomaly detection techniques." *Egyptian Informatics Journal*, Volume 17, Issue 2, 2016, Pages 199-216. ISSN 1110-8665. doi: 10.1016/j.eij.2015.11.004.

[4] S. Garg, K. Kaur, N. Kumar and J. J. P. C. Rodrigues, "Hybrid Deep-Learning-Based Anomaly Detection Scheme for Suspicious Flow Detection in SDN: A Social Multimedia Perspective," in *IEEE Transactions on Multimedia*, vol. 21, no. 3, pp. 566-578, March 2019, doi: 10.1109/TMM.2019.2893549.

[5] S. Jain, V. Sharma and R. Kaushal, "Towards automated real-time detection of misinformation on Twitter," *2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Jaipur, India, 2016, pp. 2015-2020, doi: 10.1109/ICACCI.2016.7732347.

**Evaluation of Report  
  
Evaluation by:** [Avani Mundra](mailto:amudra@asu.edu) **Date:** Sep 4, 2023

**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, the weekly report of the member is thorough and exhaustive.
* It covers all the major results discussed in the paper.

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

Yes, each section of the guidelines is sufficiently completed.

**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 beyond satisfactory. It covers all points in detail.

**Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date: 9/4/2023**