Review of: "Predicting Mobile Money Transaction Fraud using Machine Learning Algorithms"

Potential competing interests: The author(s) declared that no potential competing interests exist.

This paper utilize three machine learning algorithms, namely logistic regression, decision tree and random forest to detect the mobile money fraud. Due to the extreme data imbalance, SMOTe-ENN is adopted to over-sampling the rare data point by interpolating.

[Strength]

1. This paper is well organized and easy to follow.
2. The figures are clear and easy to understand.
3. References are rich and highly relevant to the work.
4. Comparison studies shows that Random Forest performs best than other approaches.

[Suggestion]

1. Some figures in experiments should be converted to table, such as the logistic regression results.
2. As far as I know, gradient descent should not be categorized into machine learning. Placing gradient descent side by side with logistic regression, random forest, etc, maybe misleading to readers. The introduction of gradient descent is suggested to be an appendix chapter.
3. There should be some references in Introduction.
4. The indices in confusion matrix, i.e., TP, FP, TN, FN are suggested to be listed in appendix, as well as Table 2.
5. Authors are encouraged to adopt more state-of-the-art algorithms to solve extreme data imbalance, such as re-balancing tricks for logistic regression, e.g., focus embedded logistic regression (in reality it is focal loss), which can be also optimized by gradient descent.