

# Report

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**Evaluation:** Weak Reject

**Confidence:** High

## Report

This work implements a Long Short-Term Memory (LSTM) network to predict crime patterns in a city in Colombia.

The paper is well-written and the methodology is clear in some aspects. However, it is not clear about the dataset. Is the data only the count of robberies?

Sometimes it seems that authors make a difference between RNN and LSTM, as two different classes of models. Since the LSTM is a class of RNN, what kind of RNN is implemented when they mention RNN results? What about other RNNs like GRUs?

RMSE is a scale-dependent error. The experiments exhibit a low RMSE because the variable acts on low scales and predicted values are close to the mean. It is explicit for example with Commune 10, the best RMSE was 4.106 on a scale near 15. This is a large error magnitude, as can be seen in Figure 5 when the predicted values are relative to 7.5, near to the mean, and predicted values do not follow the actual values. In this sense, the presented models are inaccurate. What about the analyses with other error metrics non scale-dependant such as R-square or SMAPE?

It missed a complete background about HPC implementation of RNN models, are they using Keras, Tensorflow, or Pytorch?, what GPU architecture are they using?

## Confidential Comment to the Organizers

The authors need to demonstrate the accuracy of the results and explain how the HPC architecture was used in the model (frameworks, GPUs, etc.)