

Review of: "Multivariate Time-Series Data Generation in Generative Adversarial Networks"

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Potential competing interests: No potential competing interests to declare.

The authors propose a model to generate multivariate time-series data using Generative Adversarial Networks.

The main contributions of the work are:

- use of a Generative Adversarial Network to generate limited time-series data from the noise.
- proposed model has two combined novel features, using unsupervised and feedback in GAN.
- Both Generator and Discriminator are 3-layer LSTM based networks.
- propose model generates realistic limited intrusion detection data from the standard CIC-IDS2017 dataset.

However, there are some serious problems:

- 1. The audiences would like to know more about the motivation and insights of the proposed model, a detailed explanation at the introduction section is needed.
- 2. Authors failed to explain clearly what is their innovation in adding GAN to generate time series data in detail.
- 3. It is suggested to work more on related work.
- 4. Figures in the paper need to have a detailed description.
- 5. Authors failed to explain clearly how does the feedback mechanism works.
- 6. Proposed algorithm also needs more description.
- 7. Results and discussion section also need to be check one more time.
- 8. Many sentences are missing technical details.

With the following suggestions, I recommend to revise the paper. The paper in the current format is not suitable for publication.

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