Using Generative Adversarial Networks for Time Series Forecasting

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Content

- What are Generative Adversarial Networks?
- Time Series
- Plan for next year
  - GANs variations to use
  - Data
What are Generative Adversarial Networks?
GANs variations

- Deep Convolutional GANs (DCGANs)
- Improved DCGANs
- Conditional GANs (cGANs)
- InfoGANs
- Wasserstein GANs
- Disco GANs
- GRANs
Time Series

Time series represents a series of data points in time order, which contains multi-level informations about the domain.

Time Series Forecasting

Conclusion: ANN (MLP, RNN, LSTM) \( \succ \) Other solutions
GANs to use

- Classic GANs
- Improved DCGANs
- Conditional GANs (cGANs)
- cGRANs
Data

- Weather Forecast Data
- Bitcoin Price Data

- Suggestions?
Plan for next year

1. Modify GANs model for time series data.
2. Try datasets to verify power of GANs
3. Survive