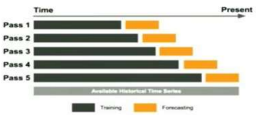
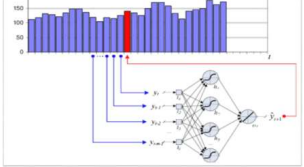
of different architectures

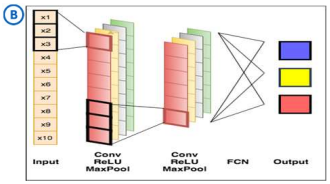
Data Preparation for Supervised Learning

Data cleaning ,outlier treatment & imputing missing values

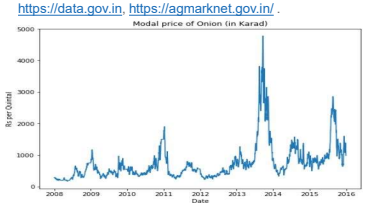


Splitting time series into training/testing samples (X,y) : Sliding vs Expanding window methods





employed deep learning methods for forecasting price of onion in Indian market. We have collected data from https://data.gov.in, https://agmarknet.gov.in/ .



Why this Problem is important ?

This onion price modelling is important for two reasons[1] :

A. It can help farmers to get better price for their produce.

B. It can also help low income consumers who are affected by high retail prices.

missing values and to capture long term dependencies. To avoid overfitting, we have to find proper balance between size of data and number of parameters in network. We can conclude by stating following[2]

- **Classical methods are best suited for :**
  Short and unrelated time series
  Known state of the world
- **Deep Learning methods are best suited for:**
  Long time-series
  A lot of time series
  Hidden interactions
  Explanation or Interpretability is not important

References

1. Madaan, Lovish, et al. "Price Forecasting & Anomaly Detection for Agricultural Commodities in India." (2019).
2. Laptev, Nikolay, et al. "Time-series extreme event forecasting with neural networks at uber." International Conference on Machine Learning. Vol. 34. 2017.
3. Image courtesy : http://karpathy.github.io/2015/05/21/rnn-effectiveness/
4. Image courtesy : https://www.researchgate.net/figure/Autoregressive-MLP-for-time-series-forecasting_fig3_221533425