Project assignment - Time series forecasting

This is a team project. One team will submit one report.

Due date: 2017\_10\_6 (Friday, end of day 11:59pm)

You’re given a time series data set that has 275 data points, which are measurements of a physical variable y(n) where n denotes year. The dataset is organized in chronological order. You’re asked to build a multi-layer perceptron model based on the dataset to predict y(n+1), …, y(n+T) where T=30.

Specifics: 1) Select your favorite algorithm to train your network for prediction. 2) Your report should at least include a figure of how well your model fits the given data, and also a figure to show modeling error.

Report: No more than 5 pages (Matlab code does not contribute to the page count).

Matlab code: as usual, include your Matlab code on separate pages of your report so that the grader can click and run the code on a test dataset that I’m holding back from you. You should provide clear instructions on how to load the 30 test data points for us to test your prediction results.

Note that this project also is a competition. The top 3 teams will be rewarded. The #1 team members will receive full credit to replace one of their lowest scored quizzes. The #2 team members will receive 50% increase (up to full credit) of one of their lowest scored quizzes. The #3 team members will receive 25% increase (up to full credit) of one of their lowest scored quizzes.