## Deep Forecasting Codes and Concepts

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- 1. Welcome to the Deep Forecasting course
- 2. 1.1: Demystifying timeseries data and modeling (Basics)
- 3. 1.2: Demystifying timeseries data and modeling (forecasting strategies)
- 4. 1.3: Demystifying timeseries data and modeling (classical vs ML vs DL modeling)
- 5. 1.4: Demystifying timeseries data and modeling (Can we beat WallStreet?)
- 6. 2.1: Setting up Deep Forecasting environment, platforms and python packages
- 7. 2.2: Setting up Deep Forecasting environment, basic Python timeseries
- 8. 3.0: Introduction to exponential smoothing methods vs ETS models
- 9. 3.1: Exponential smoothing methods (SES, Holt-linear, Holt-Winter, Damped)
- 10. 3.3: ETS (Error, Trend, Seasonality) timeseries models
- 11. 3.3: ETS timeseries models in Python (Pycaret)
- 12. 4.1: ARIMA models (pre-regs: ACF, PACF, weak vs strong stationarity, differencing)
- 13. 4.2: SARIMA(X) models for timeseries forecasting
- 14. 4.3: Tiemseries SARIMA model in Python (Pycaret)
- 15. 5:1: Machine Learning for timeseries forecasting (Data transformation and fundamentals)
- 16. 5.2: Decision Tree based ML models for Time Series: A Visual Deep Dive with Python
- 17. 5.3: Timeseries challenges in ML (Non-stationarity, cross validation and bootstrapping)
- 18. 5.4: Time Series Machine Learning in Python: PyCaret Replication with Scikit-Learn
- 19. 6.1: Neural Network basics for timeseries forecasting
- 20. 6.2: Deep Learning regularization and going beyond NN for timeseries forecasting
- 21. 6.3: A simple Deep Neural Network for timeseries forecasting in Python with Tensorflow
- 22. 7.1: Deep Sequence Modeling: DNN vs RNN -Unveiling Memory and Intuition in Time Series
- 23. 7.2: Deep Dive into RNN for timeseries: from basics to limits

- 24. 7.3: Deep Dive into Gated cells, LSTM for timeseries
- 25. 7.4.1 Python: Univariate timeseries forecasting with RNN and LSTM vs DNN
- 26. 7.4.2 Python: Multivariate timeseries with CNN, RNN, LSTM, GRU
- 27. 8.1: Deep Dive into Facebook Prophet: Paper Review -Helpful but Overhyped?
- 28. 8.1.1: Facebook Prophet for business timeseries forecasting in python (basics)
- 29. 8.1.2: Advanced Facebook Prophet —Multivariate Forecasting (Kaggle: Rossmann Sales)
- 30. 8.2.1: Time Series Forecasting with Neural Prophet: Full Theory + FB Prophet Comparison
- 31. 8.2.2 python: Mastering NeuralProphet in Python: Full Walkthrough + Prophet Benchmark

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