

Machine learning approach to forecasting of non-stationary time series

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This is a continuation of a project that has been tackled in 2021-22. The student will have to continue to improve the model accuracy for one of the largest retail suppliers, who has been struggling with extreme volatility across its product line during the pandemic. Therefore, the main emphasis of the prediction model is its robustness and adaptiveness to the changing nature of demands. The existing models include cross-sectional statistical models, machine learning models, and alike. Depending on the level of understand over some of the advanced machine learning models, the student may try to combine inverse learning to forward learning for better accuracy. The student needs to have good background in machine learning, optimization, and python programming.

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