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Explainable AI in preprocessing

Wednesday, 15 September 2021 12:00 (20 minutes)

The use of eXplainable Artificial Intelligence (XAI) in many fields, especially in finance has been an important issue not only for researchers but also for regulators and beneficiaries. In this paper, despite recent researches in which XAI methods are utilized for improving the explainability and interpretability of opaque machine learning models, we consider two mostly used model-agnostic explainable approaches namely, Local Interpretable Model Agnostic Explanations (LIME) and SHapley Additive exPlanations (SHAP) as preprocessors and try to understand if the application of XAI methods for preprocessing could improve machine learning models or not. Moreover, we make a comparison between the mentioned XAI methods to understand which performs better for this purpose in a decision-making framework. To validate the proposed decomposition, we use the Lending Club, a Peer-to-Peer lending platform in the US, dataset which is a reliable dataset containing information of individual borrowers.

Keywords

Explainable AI, Shapley values, LIME, Peer-to-Peer lending

Special/invited session

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