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CREDIT RISK ANALYSIS USING MACHINE AND DEEP LEARNING MODELS

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Due to the hyper technology associated to Big Data, data availability and computing power, most banks or lending financial institutions are renewing their business models. Credit risk predictions, monitoring, model reliability and effective loan processing are key to decision making and transparency. In this work, we build binary classifiers based on machine and deep learning models on real data in predicting loan default probability. The top 10 important features from these models are selected and then used in the modelling process to test the stability of binary classifiers by comparing performance on separate data. We observe that tree-based models are more stable than models based on multilayer artificial neural networks. This opens several questions relative to the intensive used of deep learning systems in the enterprises.