Comparison of default probability models for retail loans portfolio

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Abstract: In this paper, several credit scoring models are considered for an empirical assessment of default risk factors. A unique set of data consisting of credit portfolios of several banks is used to create logistic regression models with preliminary scaling and basic methods of machine learning, which ensures the results reliability.
Keywords: Woe factor transformation, logistic regression, support vector machine, random forest, mathematical model of reserves, expected credit loss, probability of default, exposure at default, loss given default.