

Data analytics and decision aiding models for credit risk modeling and banking

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Abstract

Over the past few decades, the financial sector has been under continuous changes in all areas of designing, implementing, and managing the services and products provided to consumers, firms, and investors. One of the most notable changes involves the extensive use of analytical modeling techniques for financial decision making and risk management. These modeling techniques originate from various disciplines, such as statistics, operations research, and computer science. This talk focuses on the applications of data analytics, based on machine learning and decision aiding methods, with emphasis on credit risk modeling and banking. We present the context for building descriptive and predictive models in these areas, the existing challenges, and overview established and state-of-the-art data analytic methodologies used this domain. Results from illustrative applications are also presented.