

Predictive Analytics

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Introduction

Data are an important source for insurance companies and financial institutions to learn about their business model and to develop future improvements. In this course we will give an overview of the different methodologies one can employ to search for relationships in a dataset and to build a predictive model. The theory will be applied in different fields of finance and insurance.

Outline

1. What is statistical learning
2. Programming in R
3. Linear regression
4. Classification
5. Linear model selection and regularization
6. Tree based methods
7. Application 1: auto insurance data
8. Application 2: predicting stock market returns

Prerequisites

- Basic knowledge about probability, statistics and programming is required.
- Knowledge about programming is a plus.