

Hotel Reviews

Problem

Find out the number of stars from a hotel review.

Data

10000 hotel reviews in free text and a star rating (1-5). Another 10000 reviews for which you have just the text.



Credit Card Fraud

Problem

Identify fraudulent credit card transactions.

Data

100M credit card transactions. Out of these 10000 turned out to be fraud attempts that have been cancelled.



Energy Grid Management

Problem

Support decisions whether to switch a gas power plant in a given hour on or off depending on whether the energy price is high, low or negative.

Data

Historical development of the energy price per hour over 10 years.
Historical weather data for the same period. Historical and current weather forecast.

Sales Forecast

Problem

Estimate how much of a given item a retail company needs to have in stock next years.

Data

Amount of sold items per day for the past 3 years. There are 10000 different items.

Book Recommender

Problem

Display potentially interesting books on the website of an online book store.

Data

50000 Users and which books each of them have bought. Purchase history of the user currently visiting the website.



Sports Marketing

Problem

Select fitting customers for each of three targeted marketing campaigns advertising sports events.

Data

500 existing customers with a purchase history, sales volume, location and social media profile.

Driving Assistant

Problem

Build a device that warns a driver if there is a bicycle on the assistants camera.

Data

100000 Camera images on which the bicycles have been labeled manually.

Home Assistant

Problem

Switch light / music / heating on and off by speaking to a home assistant.

Data

200 hours of commands spoken by different people and the transcription to text.