

The thesis discusses the topic of machine learning. It describes the theoretical base of the classification task and focuses on two algorithms--decision trees and Naive Bayes classifier. Using these algorithms we have implemented a library for the Android platform. The library provides the basic functionality for the classification task and it is designed with an emphasis on simplicity and efficiency, given that it is aimed for mobile devices.

The functionality of the library has been tested on a large data set and its precision has been comparable to other implementations.

An important part of the thesis is an application using our library. The application collects data about culture events and helps the user to filter some of them according to his or her personal preferences. As the data are obtained online from real servers, it is not only a sample demonstration, but a usable and potentially useful mobile application.