Povzetek

V diplomskem delu so obravnavane jedrne metode v strojnem učenju. Pri tem je poudarek na matematičnem ozadju jedrnih metod, razlogih za njihovo uporabo ter vključitvi le-teh v različne algoritme strojnega učenja. Pri tem so najbolj izpostavljeni algoritmi učenja, ki temeljijo na učenju s podpornimi vektorji. Predstavljene so matematične osnove, na katerih temelji učenje s podpornimi vektorji. Izpeljani so glavni načini učenja s podpornimi vektorji.

Abstract

In my work, the main goal is examining kernel methods in machine learning, their mathematical background, and reasons for their practical use in various machine learning algorithms. The focus is placed predominately is on support vector machine learning and constrained optimization theory they are based on. Presented are the ways to solve main machine learning tasks with support vector machines.

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