Trabalho Prático II
Regressão Logística

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Abstract

Nesse relatório foi implementado o algoritmo de regressão logística na forma simples e multivariada. Esse relatório visa complementar os conhecimentos apresentados em sala de aula.

1. Introduction

Soccer is the most popular sport in the world (**?**). Its popularity can be assigned to its simplicity, because only something that characterize the goal and the ball is needed to its practice. Soccer is also a subject always present on pubs tables, family and friends reunions. Who is going to win the league? Which team is better? are question raised on these talks. This is the reason that nowadays communication vehicles, like TV shows, have now specialists to discuss and make projections about which team is going to win the league or the round's fixture outcome.

Determine the outcome of a match is not a simple task, because soccer is a collective game subject to inumerous variables, such as team pattern, tactic scheme, formation, individuals failures, player's skills, team motivation, referees's decisions *etc*.

Statistics of game, teams and players are used to aid the determine soccer matches's outcome. Nowadays, these statistics are being used on soccer transmission to demonstrate better the scenario of a match, avoiding the subjectivity.

Looking into a team, it is possible to establish a performance history along the season. With the help of these statistics numbers such as number of goals per match, percentage of complete passes per game, it is possible to build a numeric chain that is repeatable between matches. As they are repeatable, it could exist a pattern on them.

Machine Learning methods

This study aims to elaborate input models for multilayer perceptron networks with basic performance data, like number of victories, losses, draws, goals scored and goals suffered.

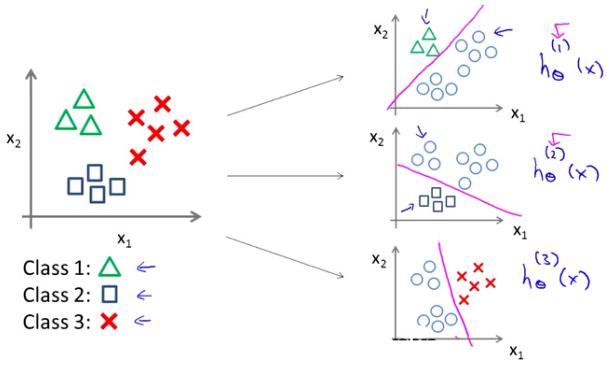

Figure 1. Demonstração: One vs all Fonte: Stanford University - ML Class

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