Machine Learning for Social Science

Multiplikator/Refernet:

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Malte Schierholz, KEM

Datum / Date

21.03.2018 + 22.03.2018

Veranstaltungsort / Place

BA-Außenstelle Peterstraße

Kurzbeschreibung / Abstract

Course Description:

You have probably heard of „machine learning“, but are not sure what it is and how it relates to standard statistical techniques. This course provides an introduction to machine learning and data analysis from a prediction perspective. This includes (1) covering a set of data-driven prediction methods and related techniques, (2) outlining common themes and tools of supervised learning and (3) providing an overview of potential applications of machine learning methods in the social sciences.

To enable researchers to use these techniques for their own work, the course will have a practical orientation and includes exercises using R.

Prerequisites:

- Working knowledge of linear and logistic regression
- A (very) basic understanding of R is advantageous, but not strictly necessary (optional learning resources can be found here: https://www.rstudio.com/online-learning/#R)

Kurssprache / course language

English

Programm und Inhalte / Programme

Day 1
- Variable selection (e.g., Regression with Lasso penalization)
- Recursive partitioning and decision trees
- Supervised learning methodology

Day 2
- General purpose prediction techniques (e.g., Boosting and Random Forests)
- Applications of supervised learning in the social sciences
- Outlook on further methods (e.g., Neural Networks)

Ablauf / Time schedule

- 21.03.2018 09:30-17:00 Uhr
- 22.03.2018 09:30-17:00 Uhr

Anmeldung / Registration

Anmeldungen bitte an das Postfach Qualifizierung senden.