Tilastollisen oppimisen jatkokurssi 2018–2019
Advanced statistical learning 2018–2019

Round 2, 10.12.–23.12.

Topics:

- Regression trees

- Classification trees

- Pruning trees

Material:

- ISLR chapter 8.1

- ISLR videos 8.1–8.3

- FDP videos: –

- ESLR chapter 9.2

- CASI chapter 8

Exercises:

1. Varian (2014): Replicate classification and regression trees and pruning in connection to Titanic example. (Notice that in 1. and 2. exercises, seemingly the obtained results are not necessarily exactly the same as reported in Varian (2014). Report and interpret your findings.)

2. Varian (2014): Replicate the example of Home Mortgage Disclosure Act (HMDA) data. In particular, see and reproduce Figure 5 (interpret your findings).

(Hints: See R libraries Ecdat and party, together with dataset Hdma.)

3. ISLR 8.8 with regression trees (parts (a)–(c))

4. ISLR 8.9, parts (a)–(h)

5. ISLR 8.9, parts (i)–(k)