Assignment 3: Bayesian Decision Theory and Graphical Models

Submission: Tuesday September 20th Maximum 2 students per group

> Prof. Fabio A. González Machine Learning - 2011-II Maestría en Ing. de Sistemas y Computación

- 1. [DHS00] Problem 13 & 14 (sect. 2.4, page 68)
- 2. [Alp10] Exercise 1 (chap. 16, page 417)
- 3. [DHS00] Computer exercise 9 (sect 2.11, page 81). Note: do not write a program, instead look for a program that solves Bayesian Networks. Provide a detailed explanation for each answer.
- 4. [Bis06] Exercise 8.11 (chap. 8, page 420)
- 5. [Bis06] Exercise 8.14 (chap. 8, page 420)

References

- [Alp10] Alpaydin, E. 2010 Introduction to Machine Learning, 2nd (Adaptive Computation and Machine Learning). The MIT Press.
- [DHS00] Duda, R. O., Hart, P. E., and Stork, D. G. 2000 Pattern Classification (2nd Edition). Wiley-Interscience.
- [Bis06] Bishop, C. 2006 Pattern Recognition and Machine Learning. Springer-Verlag.