Machine Learning in Finance

ECTS : 3

Description du contenu de l'enseignement :

Methods of Statistical Learning, applied to some financial problems of credit rating, anomaly detection and yield curve approximations

Compétence à acquérir :

Vapnik Chervonenkis dimension, PAC learning, calibration versus prediction, SVM (Support Vector Machines) classifiers, Mercer's theorem, C-SVMs, mu-SVMs and single class SVMs. Basics of decision trees, random forests and penalized regressions.

Mode de contrôle des connaissances :

Exam

Bibliographie, lectures recommandées :

Trevor Hastie, Robert Tibshirani, Jerome Friedman: The Elements of Statistical Learning, Springer
Gareth James, Daniela Witten, Trevor Hastie and Robert Tibshirani : An Introduction to Statistical Learning, Springer
Christopher Bishop: Pattern Recognition and Machine Learning, Springer