DS4023 Machine Learning

Lecture 0:
Course Introduction

Mathematical Sciences

United International College

Contact Information

- Instructor

  Dr. Nicolas Langrené (1003/1004)

  - Email: nicolaslangrene@uic.edu.cn
  - Office: T3-602-R19
  - UIC page: https://staff.uic.edu.cn/nicolaslangrene/en

- Teaching Assistant

  Mr. Guang Yang

  - Email: yangguang@uic.edu.cn
  - Office: TBD

Course Website

- iSpace:
  - Machine Learning [Semester 2 of 2022-2023]
  - Download lecture and lab slides
  - Check assignment information
  - Upload class exercises and assignments
  - Post your comments/questions on the forum

Grading

- Assignments & Quizzes (30%)
- Project (30%)
- Final Examination (40%)

Note:

- The final examination is very important and needs to reach at least a certain threshold mark in order to pass the course.
- Otherwise, the student will receive an F grade, irrespective of the marks for the other assessment components.

Reference

- Reference
  - Pattern Recognition and Machine Learning, Christopher M. Bishop. 2006. (Information Science and Statistics). Springer-Verlag, Berlin, Heidelberg.
  - Jeremy Watt, Reza Borhani, and Aggelos K. Katsaggelos. 2016. Machine Learning Refined: Foundations, Algorithms, and Applications (1st. ed.). Cambridge University Press, USA.
  - 周志华，机器学习，清华大学出版社，2016

Policies

- Submit exercises/assignments on time
  - Can submit assignments within 3 days after the deadline and get 10% off penalty each day. After 3 days, no submission will be accepted without a documented, legitimate reason.
- Academic honesty
  - Copying from others, or allowing others to copy from you, is considered academic plagiarism
  - Assignments: both get 0
  - Final: an automatic FAIL

Topics

Topic	Schedule
Introduction	Week 1
Linear Regression	Week 2-3
Logistic Regression	Week 4-5
Neural Network	Week 6-8
Support Vector Machine	Week 9-10
Mixture Model and EM	Week 11
Ensemble Learning	Week 12
Advanced Topics	Week 13