THE UNIVERSITY *of* EDINBURGH
informatics

Applied Machine Learning (AML)

Class Starting at 4:10pm

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Applied Machine Learning

Week 3: Naive Bayes and Logistic Regression

This slides will be made available on the project website after the class.
This session will be recorded.

Overview

- Discussion of the coursework
- Discussion of Week 2’s topics
- Outline your tasks this for week

Coursework

Coursework

Coursework is worth 40%

Released in week 4 with a submission deadline of 21st of November.

Group project of size **four**. Use Piazza to create groups.

Actively engaging with the labs and tutorials will be **very helpful** preparation for the coursework.

Coursework - Topics [Choose **One**]

- Worldwide trends in Spotify
  - Data taken from Spotify's 'Top 200' playlists
  - Daily ranking of the 200 most listened songs from several countries (2017-2023)
  - E.g. Task: Predict track popularity from name
- Species location data
  - Data from iNaturalist
  - Data from multiple different species collected by citizen scientists
  - E.g. Task: Predict if a species is present at a location

Fairly free to explore and choose what to do.
Broadly: Explore data → Perform Tasks → Analyse results

More info: groups.inf.ed.ac.uk/teaching/aml/mini-project/

Coursework - Forming Groups

Groups of **4** each [excepting in special/extenuating circumstances]

- Use Piazza's 'Search for Teammates' feature
- Need to decide by end of Week 3 (i.e. this week)
  - Submit teams via: https://forms.office.com/e/pCGKu5QQ0q (see webpage)
  - Those not included by deadline will be *randomly* assigned to a group!
- Do not sign up for more than one group :-)
- Do not sign up for a group if you are not taking the class for credit
- Coursework officially starts from Week 4, with submission in Week 10

Coursework - Progress Report

- **Not** mandatory or assessed; but **highly** recommended
- A ‘check-in’ to see how everyone is doing
- Report - Wed 30 Oct 5pm [via Form TBA]
  - min 1-page interim report
  - include a section each on ‘Current Progress’ and ‘Plans for Completion’
- Feedback - Fri 01 Nov 1-3pm [AT 5.04] [further details TBA]
  - intention **not** for detailed individual feedback; coarse level
  - primarily to identify those not yet started or doing very wrong things!
  - collective feedback to class after

Coursework - Policies

Do not discuss coursework amongst yourselves / Piazza
Do not ask tutors or lab demonstrators for help
For any specific questions / issues, put in a ‘Private’ post on Piazza including the instructors

Marks and comments provided ~2 weeks after final submission

For use of LLMs and other GenAI tools, please see both course and university guidance (webpage).

Of course, we won’t be marking with such tools either!

Coursework - How to Submit

Submission deadline is 21st November

You will submit a PDF group report containing text and plots

There will be one report per group

A Latex template will be given to you

Don’t worry about this now. We will discuss more in the coming weeks

Coursework - Advice

Some general advice you're **strongly** advised to follow

- Start working early; consensus within team on set of tasks
- Define your roles in the group - statement of contribution in report
- Meet regularly - collaborative discussion / coding (helps!)
- Template provides helpful structure
- Do not neglect writing - use Overleaf for easier collaboration

Coursework - FAQs

- Can my group be >4 or <4?
  - No, it must be of size 4.
- Can I choose a different project besides the two options?
  - No, but you have a lot of flexibility as to what you want to do for each project.
- How do I contact my teammates?
  - It is your responsibility to meet regularly with your group.
- Does each person in the group submit a different report?
  - No, only one report per group.
- How do I specify in the report what I did?
  - There is a contribution statement that you can use to describe what each team member did.

Week 2 Topics

Piazza Questions

- Naive Bayes independence assumption - non-visual indicators?
- Closed form solution for argmin_w NLL(w)

Week 3: Your tasks for this week

1) Watch the (i) **Linear Regression** and (ii) **Decision Trees** lectures
    a) We will discuss these in the class session next week
    b) Ask questions on Piazza about lectures if stuck - earlier the better
2) Finish “Lab 1”
3) Start working on Tutorial 1
    a) The tutorial will take place in Week 4