

Applied AI and Deep Learning – Full Time and Part Time 2024
CA1 (25% Weighting)

CA Overview:

Select a publicly available dataset with at least 8 input variables to conduct statistical regression analysis or classification in Python. [Obviously, you cannot select a problem/ dataset that has already been explored in the lectures. E.g., you cannot select any house price prediction problem/ Employee dataset].

CA Points:

Students will be expected to develop an artificial neural network with the best performance (including addressing underfitting and overfitting), from the beginning to a final saved model. All steps should be separated in a Jupyter or Colab notebook (sections),

Students are expected to discuss each piece of work, expanding on the rationale for the selection of techniques and the processes applied to get to the final model, including the use of any visual aids such as tables, plots etc. The word count is a minimum of 2000 words. Code on its own, will not be considered as a passing grade. Students might be invited to a voice viva for academic integrity.

Note: The PDF will be run through URKUND, for plagiarism evaluation, where the institution's plagiarism policy will be applied.

You must submit the following in a zipped folder:

- 1. Critical Analysis Report (.pdf)**
- 2. Python Code (.ipynb)**

Naming convention:

Report should be named as –

Code should be named as – *Report_StudentNumber_Firstname_Surname.pdf*

Code_StudentNumber_Firstname_Surname.ipynb

Zipped folder should be named as –

StudentNumber_Firstname_Surname.zip

Assessment Criteria

Each part will be graded according to the following criteria:

1. Quality of code (correctness and completeness) [Weightage – 40%]
2. Quality of analysis in the report (critical analysis of approach, presentation, and interpretation of results, conclusion) [Weightage – 60%]

General Requirements for Students

PLEASE READ CAREFULLY

1. It is your responsibility to ensure your file is uploaded correctly.
2. Students are required to retain a copy of each assignment.
3. When an assignment is submitted, it is the student's responsibility to ensure that the file is in the correct format and opens correctly.
4. The school penalizes students who engage in academic impropriety (i.e. plagiarism, Collusion and / or copying).

Penalties for late submission of assignments are as follows:

- a. 25% penalty for assignments submitted within 3 working days of the deadline.
- b. No marks for assignments submitted more than 3 working days after the deadline.