COMP7015 Course Project Assessment Rubrics (Semester 1, 2024-25)

Overview

The assessment of the course project is based on the implementation, the final report, and the presentation video that each group submits. Each group member will be given an individual score based on his/her contribution to the project and the quality of presentation. The weighting of each item is as follows.

1. Implementation 40%
2. Final Report 30%
3. Presentation 30%

Rubrics for the Final Report and Presentation

Introduction to the topic selected and descriptions of the methods used (3)	The topic selected is introduced, and the methods used are described. The reasons or advantages of using the algorithms are explained. *(3 marks)*	The methods used are described but contains some mistakes. The reasons of using the algorithms are less convincing. *(1-2 marks)*	Does not introduce the methods used. *(0 mark)*
Detailed descriptions of the work done (7)	The work done in the project or the proposed solution (for option 3) are described in detail and are correct to achieve accurate predictions. *(5-7 marks)*	The work done in the project is introduced but is not detailed or contains some mistakes. *(1-4 marks)*	Does not describe the work done in the project. *(0 mark)*
Results Analysis (10)	The results obtained are clearly presented using text and proper visualizations, correct conclusions are drawn from the results obtained. *(7-10 marks)*	The results and conclusions are presented, but they contain some mistakes. *(3-6 marks)*	Does not present the results, or the results are not organized/ explained and cannot be read and understood. *(0-2 mark)*
Contributions of each group member (3)	Detailed contribution of each group member is clearly described. *(3 marks)*	Contribution of each group member is mentioned but not in detail. *(1-2 mark)*	Does not mention the contribution of each member. *(0 mark)*
Clarity, organization, and Logic (7)	The report and presentation are well organized. The logic is clear and easy to follow. *(5-7 marks)*	The logic and organization are understandable but could be further improved. *(2-4 marks)*	The logic and organization are confusing. The report and presentation are hard to follow. *(0-1 marks)*

Rubrics for Implementation

(1) Topic 1: ICU Mortality Prediction

Choosing Machine Learning Models (5)	Proper machine learning algorithms are chosen for the task with convincing reasons. *(4-5 marks)*	The model chosen are okey, or the reasons for choosing the algorithms are not convincing. *(1-3 marks)*	The models chosen are wrong for the defined task. *(0 mark)*
Model Training (5)	The machine learning models are properly trained. *(4-5 marks)*	The models are trained but the implementation contains mistakes. *(1-3 marks)*	Does not train the models or the implementation is wrong. *(0 mark)*
Model Evaluation (20)	Correct strategies for evaluation and proper evaluation metrics are used and correctly implemented. Test set predictions are accurate. *(14-20 marks)*	The evaluation strategies and metrics are mostly correct, but the implementation contains mistakes. Test accuracy is moderate. *(5-13 marks)*	Does not evaluate the model performance. Test accuracy is poor. *(0-4 mark)*
Hyperparameter Tuning (5)	Correctly identify the hyperparameters and do hyperparameter tuning. *(4-5 marks)*	Hyperparameter tuning is done but the implementation contains some mistakes. *(1-3 marks)*	Does not attempt to do hyperparameter tuning. *(0 mark)*
Efficiency and readability (5)	The source codes are easy to read, and some efforts are made to improve the efficiency of the algorithm. *(4-5 marks)*	The source codes are understandable and can be executed, but it could be further improved. *(1-3 mark)*	The source codes cannot be understood or cannot be executed. *(0 mark)*

(2) Topic 2: Adversarial Search for Gomoku

Implementing the game setup (5)	The game is correctly implemented and accepts input from human player. *(4-5 marks)*	The implementation is okey, but there are some errors. *(1-3 marks)*	The game environment is not correctly implemented, or it does not accept input. *(0 mark)*
Implementing the functions formulating the search problem (10)	The necessary functions are implemented and error-free. *(7-10 marks)*	The functions are implemented, but the implementation contains mistakes. *(1-6 marks)*	Does not implement the necessary functions or the implementation is wrong. *(0 mark)*
Implementing the minimax search (10)	The minimax search algorithm is correctly implemented. *(7-10 marks)*	The algorithm is implemented but contains error. *(1-6 marks)*	Does not implement the search algorithms. *(0 mark)*
Implementing the alpha-beta pruning (6)	Correctly implements alpha-beta pruning algorithm. *(4-6 marks)*	The implementation contains some mistakes. *(1-3 marks)*	Does not implement the pruning method. *(0 mark)*
Implementing MCTS algorithm (9)	Correctly implements the MCTS algorithm to decide the next move. *(5-9 marks)*	The implementation contains some errors. *(1-5 mark)*	MCTS is not implemented. *(0 mark)*

(3) Topic 3: Open Topic

Choosing AI Algorithms for the Proposed Problem (5)	Proper AI algorithms are chosen for the proposed problem with convincing reasons. *(4-5 marks)*	The algorithms chosen are okey, or the reasons for choosing the algorithms are not convincing. *(1-3 marks)*	The models chosen are wrong for the defined task. *(0 mark)*
Algorithm Implementation (15)	The algorithm chosen are properly implemented. *(10-15 marks)*	The algorithms are implemented but the implementation contains mistakes. *(1-9 marks)*	Does not implement the algorithms chosen. *(0 mark)*
Algorithm Evaluation (15)	Correct strategies for evaluation and proper evaluation metrics are used and correctly implemented. *(10-15 marks)*	The evaluation strategies and metrics are mostly correct, but the implementation contains mistakes. *(1-9 marks)*	Does not evaluate the model performance. *(0 mark)*
Efficiency and readability (5)	The source codes are easy to read, and some efforts are made to improve the efficiency of the algorithm. *(4-5 marks)*	The source codes are understandable and can be executed, but it could be further improved. *(1-3 mark)*	The source codes cannot be understood or cannot be executed. *(0 mark)*