



## CMP9137M Advanced Machine Learning Assessment Item 1 - 2023-24

| Learning Outcome   | Criterion   | Pass   | Merit  | Distinction  |
|--|---|--|--|--|
| [LO3] Use machine learning software to solve complex real-world problems in an application domain of interest. | Provide a software solution to the given real-world tasks.<br><br><b>(40%)</b>  | A small or simple set of classifiers and reinforcement learning agents is provided, which have been applied to the test data. The trained models solve part of the proposed tasks. However, the performance results are considered as low.   | An interesting set of classifiers and reinforcement learning agents is provided, which have been applied to the test data. The trained models solve the proposed tasks, mostly. The performance results are acceptable (medium to high) but could still be improved to achieve higher results.   | A well-chosen or comprehensive set of classifiers and reinforcement learning agents is provided, which have been applied to the test data. The performance results are high in comparison to previous works. Even when the results might not (very) high, they show ambition or promise in the proposed solutions.   |
|  | Discuss, compare and justify the process undertaken to achieve the solution, and the choices made. This is within a written report.<br><br><b>(60%)</b> | A report is provided, but it only contains a basic discussion of the selection of machine learning techniques to create the submitted models, with no/limited convincing justification for proposed solutions. Some attempts are made to support the discussion with references from literature. | A well-structured and organised report is provided. The report contains a logical and non-trivial discussion of the selection of machine learning tools to generate the final models. There is convincing justification regarding the decisions and choices made, which are supported by relevant references from academic literature. | A well written, well organised, and crafted report is provided. The report presents a very logical and convincing discussion of the selection of machine learning tools and methods to generate the trained models. The justification of the choices made demonstrates very good understanding of Machine Learning and a range of their techniques. The report is supported by a relevant set of academic references, which have been appropriately cited. |
|  | Video of solutions<br><br>(pass or fail)  | Failure to submit a video of your solutions will result in an overall mark of 0.   |  |  |
| <b>Weighting</b>   | All criteria in this assessment are weighted as indicated above   |  |  |  |