

PD-2: The problem description is clear and provides a concise overview of the project. It effectively explains that the goal is to create a machine learning model to play Pong by predicting object movement and intercepting it along one axis. Good job!

M-2: The motivation clear. Creating a machine learning model to play Pong. Also, it enables single-player model which another play can be controlled by RL agent.

ML-1: While you've mentioned using reinforcement learning and scikit-learn, it would be more clear if you can discuss deeper into why reinforcement learning is the chosen approach and how you plan to implement it. Clarify observation space and action space and reward function.

DCT-1: The proposal mentions using gymnasium for simulating Pong, but it lacks details on data sources and hardware/software requirements. Are you planning to use any pre-trained model and doing transfer learning or behavior cloning?

Things to consider:

1. Since you're considering using reinforcement learning, discuss which specific reinforcement learning algorithms you intend to explore. For instance, Deep Q-Networks (DQN) or Proximal Policy Optimization (PPO).
2. Clarify whether you will train your model from scratch or use any pre-trained models as a starting point. The choice can significantly impact the project's complexity and timeline.
3. It's crucial to address potential challenges, such as the high dimensionality of game states and the exploration-exploitation trade-off in reinforcement learning.