Errata - Mid Semester Report

Autonomous Driving in SuperTuxKart using Reinforcement Learning

January 2025 - May 2025, Sorbonne University

Wilson Cedric GENEVIEVE ; Safa GUNES ; Mahmoud DARWISH ; Badr BENHAMMOU

1 Content Mistakes

There were some factual inaccuracies and reference errors that required corrections.

Section	**Description of Error**	**Correction**
Introduction (Page 1)	*SuperTuxKart developers* lacked specificity.	Replace with: **SuperTuxKart developers from the SuperTuxKart Team.**
Figure 1 Caption (Page 2)	Incorrect track name: *BlackForest*.	Replace with: **Cornfield**

2 Spelling Mistakes

A typographical error were identified that required correction.

Section	**Phrase (Excerpt)**	**Incorrect Word**	**Correct Word**
Exploration of Key Concepts (Page 4)	"...the EulerAgent emphasizes speed maximization by refining *accleration* logic..."	*accleration*	**acceleration**

3 American English Mistakes

There was some inconsistency regarding the use of British and American spelling. We are using British English and will stick to it moving forward, though our spell-checking tools were initially set for American English. The following corrections were made to ensure British spelling throughout the report.

Section	Phrase (Excerpt)	Incorrect Spelling	Correct Spelling
Abstract (Page 1)	"...focusing on efficient track navigation, obstacle avoidance, and performance *optimization*."	*optimization*	**optimisation**
Introduction (Page 2)	"...emphasizing the necessity for adaptive *behavior* that combines effective path-following..."	*behavior*	**behaviour**
Illustration of Key Gameplay Elements (Page 2)	"...strategic positioning and evasive *maneuverers* to avoid collisions."	*maneuverers*	**manoeuvrers**
Problem Definition and Objectives (Page 3)	"...implement *visualization* tools to analyze track geometry..."	*visualization*	**visualisation**
Exploration of Key Concepts (Page 4)	"...Peripheral vision mechanisms expand the agent's awareness to detect items... The ItemsAgent integrates peripheral vision to improve obstacle avoidance by identifying potential threats before they directly obstruct the kart's *behavior*."	*behavior*	**behaviour**
Analysis of Provided Scripts (Page 5)	"...further adjustments in item avoidance logic to improve agent *behavior* in narrow passages."	*behavior*	**behaviour**
Technical Data Sheets and Analysis (Page 6)	"...highlighting the impact of item avoidance techniques on agent *behavior* during complex race scenarios."	*behavior*	**behaviour**
Additional Implemented Utilities (Page 7)	"...introducing improved kart steering logic to refine overall *behavior* in complex race layouts."	*behavior*	**behaviour**
Future Works (Page 8)	"...to achieve optimal racing *optimization* through refined speed control strategies."	*optimization*	**optimisation**
Conclusion (Page 9)	"...achieving enhanced racing *optimization* by combining item avoidance techniques with refined acceleration logic."	*optimization*	**optimisation**