Performance Evaluation project: Optimizing cars' trajectory with AI

Ottavy Macéo, Longatte Mathieu, Louison Mocq

Part I

Introduction

Part II

Deep Q-learning

- 1 Markovian decision porcess
- 2 What is Q value?
- 3 What is Q learning

Part III

Genetic algorithms

- 4 What are genetic algorithms
- 5 Markov Chain modelisation
- 6 NEAT

Part IV

Car Racing environment

- 7 Cars' physics
- 8 Technical aspects of the environment
- 9 Rewards

Part V

Performance Evaluation

- 10 Algorithms
- 11 Best car