

Final Project Proposal

Elevator Pitch: Implementing AI to play *T-Rex Run* (google chrome dino game) using Q-learning.

Topics:

1. Making use of an existing trained object recognition.
2. Performing basic pre-processing operations on image.
3. Getting your game to interact with a real game via an emulator.
4. Q-learning.
5. Experiments to evaluate AI approach.

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Context: Link to the interface where game will be played: *chrome://dino/*. We will have interaction between game and model using PyAutoGUI library. If not able to setup direct connection between them using above mentioned library, we will use Selenium to send and receive data between model and game.

Link of game description: https://en.wikipedia.org/wiki/Dino_Run

Language/Tools: Python, Image processing (Open CV or TensorFlow).

Disclosure: We have not worked on this project (or parts) before.

Milestones:

Milestone 1: Build an interface between game and model. Building game state by pre-processing captured images.

Milestone 2: Training model using Q-learning for the agent to play the game.

Final Submission: Conducting experiments and evaluating them to improve the performance of the agent.