CSE 546 Final Project Design Doc

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Environment setup

Data returned by each frame from the object detection model will be the following

[[class_id, lane, y_pos],
[class_id, lane, y_pos],
[class_id, lane, y_pos],...]

Where each item in the outer array corresponds to a detected object in the frame

Each class_id corresponds to the following:
0 = end_hold
1 = note
2 = start_hold

Lane corresponds to one of four lanes in the gameplay environment where the notes will fall. Possible values for lane range from [0, 3]

Reward shaping

Hit judgments can be obtained by running the modified build of osu!lazer with a socket listening on 127.0.0.1:5555. The listener will pick up data sent by the game client in the form of ints numbering [0, 5], with each number corresponding to a hit judgment. The rewards for each judgment should be as follows:

ID	Name	Reward
0	Miss	-3
1	Meh	-2
2	Ok	-1
3	Good	1
4	Great	2
5	Perfect	3

Flags
Sockets will also return certain flags as integers to indicate game conditions, they are as follows:

ID	Name	Purpose
6	Song passed	Terminated
7	Song failed	Truncated