

# CSE 546 Final Project Design Doc

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\*TENTATIVE

## 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 = note

1 = start\_hold

2 = end\_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:

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