

#### PROJECT

#### Train a Smartcab to Drive

A part of the Machine Learning Engineer Nanodegree Program

PROJECT REVIEW
CODE REVIEW 1
NOTES

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2 SPECIFICATIONS REQUIRE CHANGES

Great job with this project. You actually implemented too much, as future states do not need to be considered. Almost done!

#### Implement a Basic Driving Agent

Student summarizes observations about the basic driving agent and its behavior. Optionally, if a visualization is included, analysis is conducted on the results provided.

It seems like this does make sense, its just not very good.

No, It doesnt make any sense because due to its randomness we wont be able reach to our desired destination thus reliablity dont make any sense here.

## Inform the Driving Agent

Student justifies a set of features that best model each state of the driving agent in the environment. Unnecessary features not included in the state (if applicable) are similarly justified.

Great job! You could also think about what including  $\boxed{\mathtt{destination}}$  would do to our state space.

The driving agent successfully updates its state based on the state definition and input provided.

## Implement a Q-Learning Driving Agent

The driving agent chooses the best available action from the set of Q-values for a given state. Additionally, the driving agent updates a mapping of Q-values for a given state correctly when considering the learning rate and the reward or penalty received.

See code review. You need to modify your Q-Learning function. You should not consider future state in this task.

Student summarizes observations about the initial/default Q-Learning driving agent and its behavior, and compares them to the observations made about the basic agent. If a visualization is included, analysis is conducted on the results provided.

Great job!

## Improve the Q-Learning Driving Agent

Student summarizes observations about the optimized Q-Learning driving agent and its behavior, and further compares them to the observations made about the initial/default Q-Learning driving agent. If a visualization is included, analysis is conducted on the results provided.

Wow! Gompertz Function! Very fancy :D

Thank you for providing references.

The driving agent is able to safely and reliably guide the *Smartcab* to the destination before the deadline.

Student describes what an optimal policy for the driving agent would be for the given environment. The policy of the improved Q-Learning driving agent is compared to the stated optimal policy, and discussion is made as to whether the final driving agent commits to unusual or unexpected behavior based on the defined states.

**☑** RESUBMIT

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CODE REVIEW COMMENTS





# Best practices for your project resubmission

Ben shares 5 helpful tips to get you through revising and resubmitting your project.

• Watch Video (3:01)

Have a question about your review? Email us at review-support@udacity.com and include the link to this review.

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