

### **First implementation: CartPole-v0**

The first implementation is based on:

<https://pythonprogramming.net/openai-cartpole-neural-network-example-machine-learning-tutorial/>

Here, the “initial population” has been redefined to generate data through generations. It finds the best values, and the actions will be based on this.

The neural network remains the same, together with the training of the data, and the AI playing of the game through predictions of the model. The formatting has been modified throughout the code to support our implementation.

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### **Second implementation: MountainCar-v0**

The second implementation is based on:

<https://pythonprogramming.net/openai-cartpole-neural-network-example-machine-learning-tutorial/>

Here, we have integrated the keras libraries. The initial population is has been redefined to have an exploration parameter. The neural network has been redesigned to use the layers given from keras with new dimensions and amount.