

# ML2021Spring HWXII Report

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Public Score	Private Score
266	-

The methods I used to pass the strong baselines include:

## 1. DQN

```
class QNetwork(nn.Module):
    """Actor (Policy) Model."""

    def __init__(self, state_size, action_size, seed, fc1_units=64, fc2_units=64):
        """Initialize parameters and build model.
        Params
        =====
        state_size (int): Dimension of each state
        action_size (int): Dimension of each action
        seed (int): Random seed
        fc1_units (int): Number of nodes in first hidden layer
        fc2_units (int): Number of nodes in second hidden layer
        """
        super(QNetwork, self).__init__()
        self.seed = torch.manual_seed(seed)
        self.fc1 = nn.Linear(state_size, fc1_units)
        self.fc2 = nn.Linear(fc1_units, fc2_units)
        self.fc3 = nn.Linear(fc2_units, action_size)

    def forward(self, state):
        """Build a network that maps state -> action values."""
        x = F.relu(self.fc1(state))
        x = F.relu(self.fc2(x))
        return self.fc3(x)
```

Reference: [https://github.com/mlefkovitz/Lunar-Lander/blob/master/DQN%20Lunar%20Lander.py?fbclid=IwAR2yVcuRh-Bgpz5xyT7l\\_t6oLAPHLA\\_8NwumOj9sNRdSC\\_QtBZYe-uyMdSk](https://github.com/mlefkovitz/Lunar-Lander/blob/master/DQN%20Lunar%20Lander.py?fbclid=IwAR2yVcuRh-Bgpz5xyT7l_t6oLAPHLA_8NwumOj9sNRdSC_QtBZYe-uyMdSk)

(Your report should be written in English. Do not exceed 100 words describing your methods, but you may add comments to your code to make other students easier to understand.)