

## Udacity

Christian Leininger

Supervisor:

Advisor:

## 1 Introduction

This work is about solving the second project of the deep reinforcement learning course. consecutive episodes. By collecting a yellow banana the reward is +1 and for a blue banana -1.

## 2 Environment

The Environment is given from Unity Machine Learning Agents (ML-Agents). The state space has 37 dimensions and contains the agent's velocity, along with ray-based perception of objects around the agent's forward direction and the agent has 4 discrete actions forward, backward, left and right

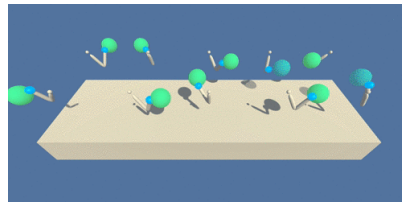


Figure 1: Continuous environment

## 3 Learning algorithm

### 3.1

## 4 Results

compare.png

Figure 2: Scores of the different agents

## **5 Future ideas to improve the performance**

### **References**