Check Points: Neural Networks: Deep Learning, Convolutional Networks, Reinforcement Learning

If you are not able to answer some of these questions, first check the slides and lecture notes. If you still do not understand the question, send me an e-mail at <u>Dario.Floreano@epfl.ch</u>

- What is an Autoencoder?
- How are Autoencoders used in Deep Learning architectures?
- How does a 2D convolution filter operate?
- What are the Max Pool and Mean Pool operators used for?
- Mathematically define the Total Return
- Mathematically define the Q function
- Is the Q value of a state-action pair equal to the reward?
- Given a Q-function, how do you choose the action for a given state?
- What are the outputs of a Deep Q-Learning network?
- What are the limitations of Q-learning algorithms?
- What are the outputs of a Policy learning network for discrete action space?
- What are the outputs of a Policy learning network for continuous action space?