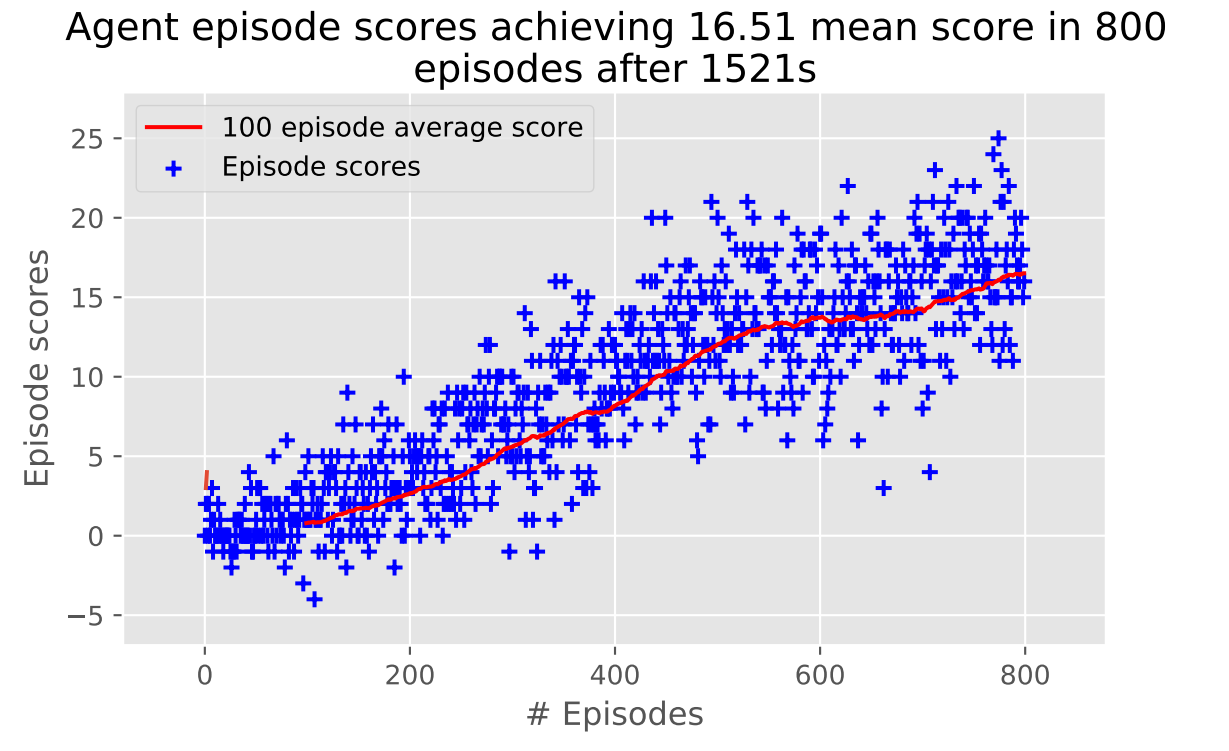
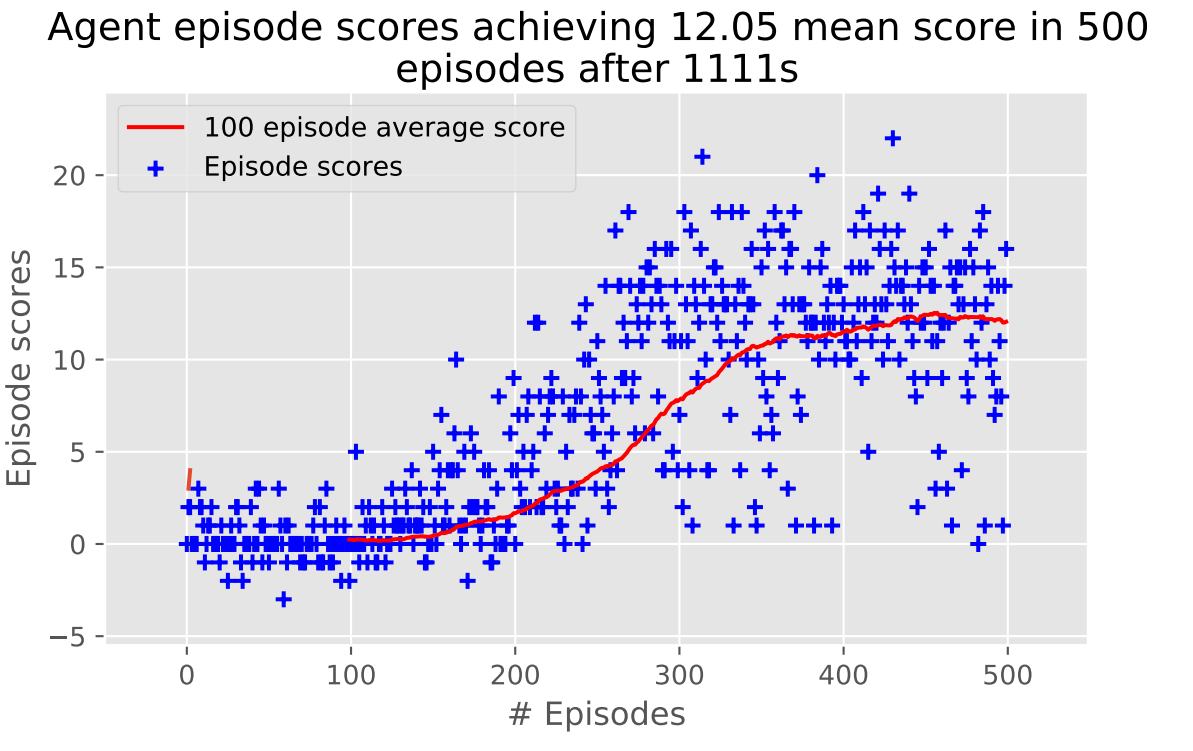
Ray-Tracing Banana Results

In this report we summarize the performance of various flavours of the DQN algorithm. ALl experiments use the following default hyperparameter configurations. The parameters provided with each figure overwrite the default parameters, differentiating each trial

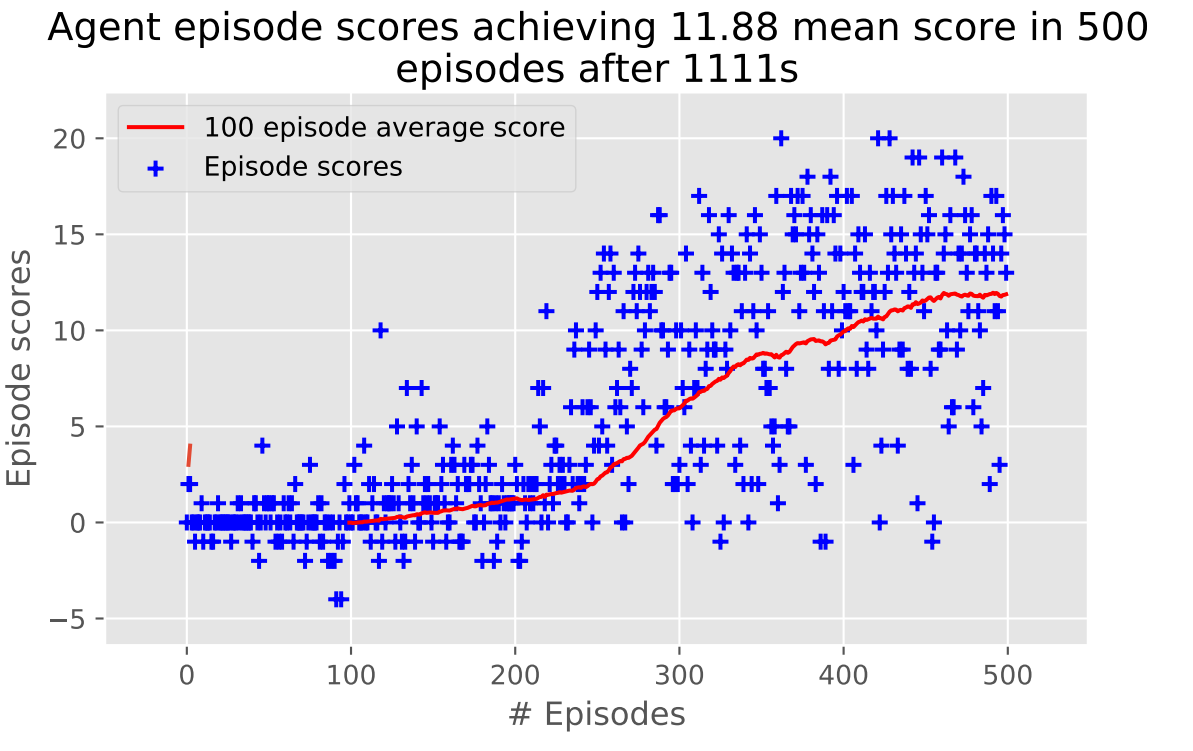
SEED=123
INITIAL_LR=0.0005
N_EPISODES=500
MAX_T=1000
TAU=0.001
GAMMA=0.99
NUM_STACKED_FRAMES=1
BATCH_SIZE=32
ACTION_REPEATS=1
UPDATE_FREQUENCY=4
WARMUP_STEPS=1000
LR_GAMMA=0.995
OUTPUT_FC_HIDDEN_SIZES=(128,)
OUTPUT_HIDDEN_DROPOUT=None
CATEGORICAL=False
NUM_ATOMS=51
SUPPORT_RANGE=(-10, 10)
NOISY=False
DUELING=False
GRAYSCALE=False
EPS_DECAY_FACTOR=0.995
FINAL_EPS=0.01
N_FILTERS=(32, 64, 64)
KERNEL_SIZES=[(1, 3, 3), (1, 3, 3), (4, 3, 3)]
STRIDE_SIZES=[(1, 3, 3), (1, 3, 3), (1, 3, 3)]
MLP_FEATURES_HIDDEN=(128,)
MEMORY_CAPACITY=50000
MLP_FEATURES_DROPOUT=None
N_EVAL_EPISODES=10



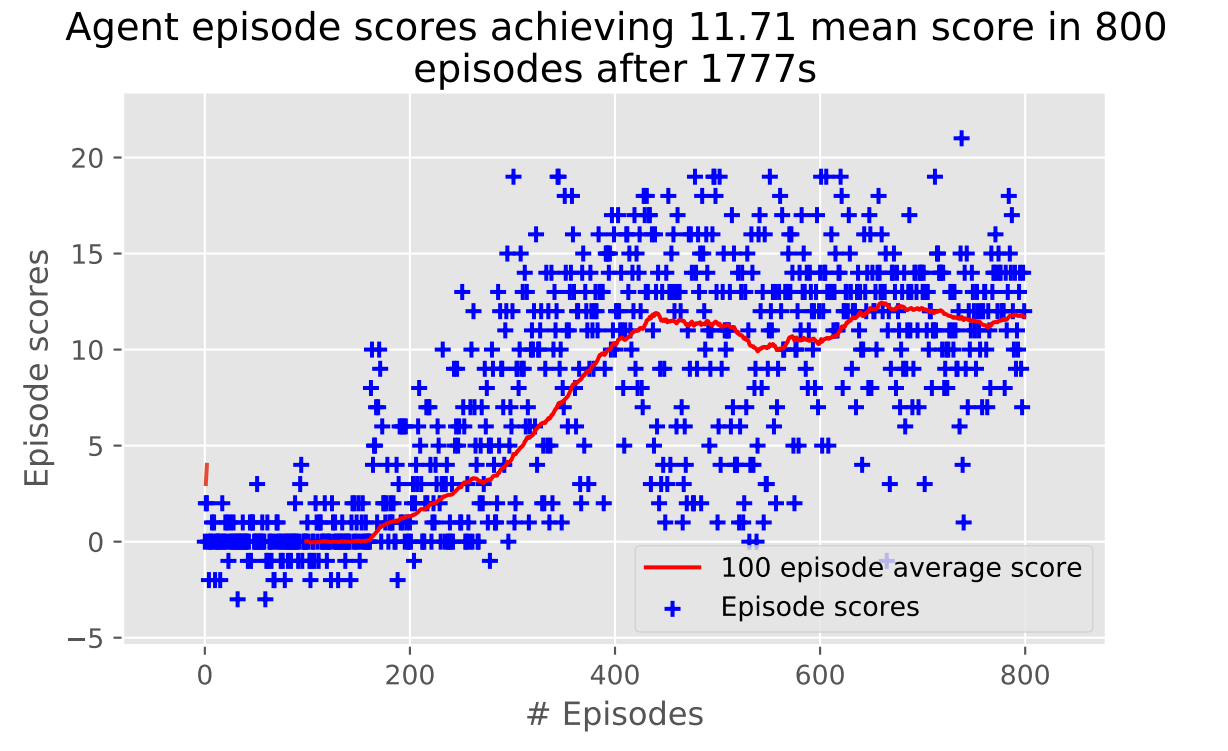
N_EPISODES=800; DUELING=True; MLP_FEATURES_HIDDEN=(256,);



OUTPUT_FC_HIDDEN_SIZES=(32,); CATEGORICAL=True; SUPPORT_RANGE=(-10, 20); NOISY=True; DUELING=True; MLP_FEATURES_HIDDEN=(128, 128);



OUTPUT_FC_HIDDEN_SIZES=(64,); CATEGORICAL=True; SUPPORT_RANGE=(-10, 20); NOISY=True; DUELING=True; MLP_FEATURES_HIDDEN=(128, 128);



N_EPISODES=800; CATEGORICAL=True; NOISY=True; DUELING=True; MLP_FEATURES_HIDDEN=(256,);