Work Report Summary

Date Assigned: 30th May, 2019.
Date Submitted: 22nd June, 2019.
Name: Abhishek Deshpande
Subsystem: Coding

Summer Project – Control and Dynamics of Biped:

➢ Assigned: Create a URDF for a stick figure biped and spawn it in RVIZ (or pybullet)
Completed: Had difficulty with creating URDFs. Asked for help and I was told to start small and make basic shapes and then create a basic arm using that. Completed the tutorials on making basic URDFs. Created a URDF for a basic arm with 3 degrees of freedom and spawned it on RViz.
https://github.com/RoboManipal-9-0/Coding-FirstYears/blob/SummerProject--ControlDynamicsOfBiped/BipedProject/basic-3-dof-arm.urdf

➢ Assigned: Neural Nets + Basic RL.
Completed: Read up on basic articles of Neural networks and basic reinforcement learning
  o https://skymind.ai/wiki/neural-network
  o https://skymind.ai/wiki/deep-reinforcement-learning
  o https://www.geeksforgeeks.org/what-is-reinforcement-learning/
  o https://www.sciencedirect.com/topics/neuroscience/neural-networks

➢ Assigned: Continue CS231n.
Completed: Learning CS231n – Convolutional Neural Network from a Stanford University Playlist on YouTube – Watched 14 out of 16 videos.
https://www.youtube.com/playlist?reload=9&list=PL3FW7Lu3i5JvHM8ljYj-zLfQRF3EO8sYv

➢ Assigned: Familiarise with Tensorflow.
Completed: Read up on basic syntax of using Tensorflow in Python. Installed and used it through Anaconda and Spyder. Trained and evaluated a few models using a cats/dogs dataset that was provided to me during a workshop I had attended during the course of the semester.