College of Engineering, Trivandrum

COMPUTER SCIENCE AND ENGINEERING



Project Dairy

Submitted By:
Jayadeep K M
Kevin Joseph
Mohammed Nisham K

Guide: Vipin Vasu vipin@cet.ac.in

17th November, 2016

14th October, 2016: Started working on the project, created git repo.

 $20^{\rm th}$ October, 2016 - $25^{\rm th}$ October, 2016 : Created prototype of Tic-Tac-Toe game using basic q learning, in cpp. Unbeatable opponent by 10000 episodes.

26th October, 2016: Ported code to java, split into multiple files for easier upkeep. BugFix in reward function. Started working on deep Q network class. Converted Qmap to interface for easier switching between neural network and array.

 $27^{\rm th}$ October, 2016 : Qmap initialise with zero bug fixed. Added test function for neural network

6th November, 2016: Added Arcade Learning Environment for interface with atari gaming environment, and to get parameters of the game like action set, reward, life, score etc.

8th November, 2016: Implementation converted to python for prototype testing of ale, Ale interfacing with python working. Found python to be slow, decided on continuing with java