## 4H Introduction to Reinforcement Learning and Deep Q Neural Networks

Trainer: Dan Chalk

Time

Total Time: 180

Format	Name of Activity
15 Live Lecture	Introduction to Dan Chalk's Treasure Hunt
30 Group Game	Let's Play Dan Chalk's Treasure Hunt
5 Cohort Discussion	Post-game discussion
15 Live Lecture	Introduction to Reinforcement Learning and the Exploration-Exploitation Dilemma
10 Comfort Break	
10 Live Lecture	Introduction to Dan Chalk's Treasure Hunt Round 2
5 Group Discussion	PSGs decide on exploitation rate in their breakout rooms
10 Group Game	Let's Play Dan Chalk's Treasure Hunt Round 2
5 Cohort Discussion	Post-game discussion
10 Live Lecture	Learning Rates and a Linear Operator Learning Rule
5 Group Discussion	PSGs decide on exploitation and learning rates in their breakout rooms
10 Group Game	Let's Play Dan Chalk's Treasure Hunt Round 3
5 Cohort Discussion	Post-game discussion
5 Comfort Break	
30 Group Exercise	Exercise 1 : RL Application Ideas
10 Cohort Discussion	PSGs pitch their RL application ideas