Project Details

**Project Topics -**

Chapter 2 (Train Robot to Walk) - <https://arxiv.org/pdf/2112.07031.pdf>

Chapter 8 (Atari Game) - [Playing Atari with Deep Reinforcement Learning](https://www.cs.toronto.edu/~vmnih/docs/dqn.pdf) - refer

Chapter 9 (Doom Game) - <https://jerrybai1995.github.io/asset/doom/doom_report_final.pdf>

<https://link.springer.com/article/10.3103/S0146411619030052>

**Choice of Project Topic** - (Add your preferred project related to RL, Deep RL, and Q-learning here)

-> Chapter 8

**Project Link -**

<https://github.com/PacktPublishing/Hands-On-Reinforcement-Learning-with-Python/blob/master/Chapter08/8.8%20Building%20an%20Agent%20to%20Play%20Atari%20Games.ipynb>

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://static.packt-cdn.com/downloads/HandsOnReinforcementLearningwithPython_ColorImages.pdf>

<https://arxiv.org/abs/1312.5602>

**Hands-On -** (session for learning implementation of AI tools)

[Practical AI with Python and Reinforcement Learning | Udemy](https://www.udemy.com/course/practical-ai-with-python-and-reinforcement-learning/)

<https://www.youtube.com/watch?v=Mut_u40Sqz4&ab_channel=NicholasRenotte>

Login Details - (Anonymous)

Username - [shadywoho@gmail.com](mailto:shadywoho@gmail.com)

Password - alukhao1

**Related Papers -**

Playing Atari with Deep Reinforcement Learning - (Base paper) chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www.cs.toronto.edu/~vmnih/docs/dqn.pdf>

Deep Reinforcement Learning - <https://arxiv.org/abs/1701.07274>

<https://ieeexplore.ieee.org/abstract/document/8103164>

Q-learning Algorithms: A Comprehensive Classification and Applications - <https://www.researchgate.net/publication/335805245_Q-Learning_Algorithms_A_Comprehensive_Classification_and_Applications> - Pratik

Exponential Moving Average Based Multiagent Reinforcement Learning Algorithms- <http://www.sce.carleton.ca/faculty/schwartz/abstracts/emaair.pdf> - Pratik

Reinforcement Learning with Augmented Data - <https://arxiv.org/pdf/2004.14990.pdf> -Pratik

Reinforcement Learning: Deep Q-Learning with Atari games - <https://medium.com/nerd-for-tech/reinforcement-learning-deep-q-learning-with-atari-games-63f5242440b1>

Human-level control through deep reinforcement learning -

<https://www.nature.com/articles/nature14236>

Revisiting the Arcade Learning Environment: Evaluation Protocols and Open Problems for General Agents”

Journal of Artificial Intelligence Research (2018)-

<https://jair.org/index.php/jair/article/view/11182> - Pratik

**Project Proposal -** <https://docs.google.com/document/d/1uXG_9Iv-rfDa1EW9HF3VB96Nh4IFLpvMbVu9GziqO8s/edit?usp=sharing>

Whatsapp Group - <https://chat.whatsapp.com/FTwo2exizH11W8pUcVjqkA>

Useful Links - (for learning)

<https://paperswithcode.com/task/atari-games>

<https://neptune.ai/blog/best-reinforcement-learning-tutorials-examples-projects-and-courses>