Theoretical Reinforcement Learning Notes

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11st Feb 2022

Please email me at kriskongloveyou@gmail.com if you find any typos or errors. I do appreciate it!

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Abstract

A kind reminder: This notes are mainly for reinforcement learning (RL) researchers who want to have a deep understanding in some basic RL concepts and related topics from a theoretical perspective. For those novices in this area, I recommend you read Csaba Szepesvári's RL book (2010) (about 100 pages) or the most famous RL book (2018) (about 500 pages) by Richard S. Sutton and Andrew G. Barto before you read my notes. Of course, you can also take my note as your first RL book and take the two books I mentioned above as references if you have a strong math background.

Updating...

To my mum Jing Liang and my dad Zisheng Kuang with my forever love!

Acknowledgements

First and foremost, I am greatly thankful to the Guangzhou Government, who stuck to support the development of the Hong Kong University of Science and Technology (Guangzhou) Campus and our research teams, even during a financially difficult time and a global pandemic caused by COVID-19.

I would like to thank my interview committee members: Ming Liu and Michael Yu Wang, who decided to recruit me as a post-graduate researcher at Hong Kong University of Science and Technology.

I am so grateful to my three advisors: Fangzhen Lin, Jun Ma, and Ling Shi, who were willing to be my supervisors even I don't have any publishment during my undergraduate, and also gave me the freedom to pursue my own research ideas on Multi-Agent Systems and Reinforcement Learning.

Thanks to Miss. Xuetong Wang as she donated her monitor to me so that I don't have to be worried about health issues of my eyes and back.

Thanks to Miss. Xiaomeng Chen as she let me borrow her Reinforcement Learning book (Sutton and Barto). I read that book more than five times, which makes me fall in love with this great research area.

Thanks to Miss. Huiwen Yang as she gave me a lot of academic support so that I could have a deep understanding of some pure math topics.

Thanks to Mr. Nachuan Yang as he let me borrow his math books about control and systems, which inspire me the importance of theoretical work during research and shock me with the beauty of pure math.

Thanks to Mr. Dongwei Xiao as he talked with me many times about research and many other broad topics, and also gave me a lot of covid test boxes during the pandemic. I hope both of us could be great professors who will not only do a great job at research but also do care about students with a warm heart.

Last but not least, I would like to thank my parents, Jing Liang and Zisheng Kuang, who provided me with their endless love and supported me all the time. I am forever grateful to them!

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References

Sutton, R. S., & Barto, A. G. (2018). *Reinforcement learning: An introduction*. MIT press.

Szepesvári, C. (2010). Algorithms for reinforcement learning. *Synthesis lectures on artificial intelligence and machine learning*, *4*(1), 1–103.