



AI Project Topics

2021/2022

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Topic 1

Curious Agents/Active Learning

More details in:

<http://burrsettles.com/pub/settles.thesis.pdf>. http://link-springer-com-443.webvpn.fjmu.edu.cn/chapter/10.1007%2F978-3-642-24769-9_38
<https://dl.acm.org/doi/abs/10.1016/j.cogsys.2012.04.003>

Topic 2

Human in the Loop AI/Collaborative AI/Interactive Machine Learning

More details in:

<https://medium.com/vsinghbisen/what-is-human-in-the-loop-machine-learning-why-how-use>

Topic 3

Open world machine learning (a.k.a. open world recognition/classification, or open-world AI, or Open set class Machine Learning

More details in:

<https://www.cs.uic.edu/~liub/open-classification.html>.

Topic 4

Multi/Single-agent Reinforcement Learning

More details in:

http://www.dsc.tudelft.nl/~bdeschutter/pub/rep/10_003.pdf

<https://arxiv.org/abs/1911.10635>.

Topic 5

Imitation Learning/Learning from Demonstrations/Inverse Reinforcement Learning

More details in:

<https://medium.com/@SmartLabAI/a-brief-overview-of-imitation-learning-8a8a75c44a9c>.

https://medium.com/@jonathan_hui/rl-inverse-reinforcement-learning-56c739acfb5a.

Topic 6

Ethics, Laws, Explanations and AI (Teaching Ethics to AI agents; Explaining AI decisions)

More details in:

[https://www.frontiersin.org/research-topics/8762/
ethical-machine-learning-and-artificial-intelligence-ai](https://www.frontiersin.org/research-topics/8762/ethical-machine-learning-and-artificial-intelligence-ai)

<https://intelligence.org/files/ValueLearningProblem.pdf>

[https://pdfs.semanticscholar.org/589a/90e7487939b44a85c5c211d67a4ae3da117c.
pdf](https://pdfs.semanticscholar.org/589a/90e7487939b44a85c5c211d67a4ae3da117c.pdf)

<https://dkasenberg.github.io/inverse-reinforcement-learning-rescue/>

<https://www.frontiersin.org/articles/10.3389/frai.2020.00036/full>