

Is learning algorithms a bad idea?

- What we know from last lecture:
 - Current approaches are very hard, expensive and/or very data hungry
 - Additionally — if the algorithm is inside one or more ANNs it lacks interpretability
 - Generalization does not seem possible for „full-algorithm-scale“ since all RL scenarios would be needed to have a good distribution

	Small algorithm scale	Medium algorithm scale	Full algorithm scale
Training Cost	O	++	++++
Inference cost	O	+	+++
Data Demand	O	++	All
Interpretability	+	--	----

- What is the motivation of this approach?

Suggestions/Questions

- Investigate in Hyperparameter Optimization or Algorithm adaptations
 - Both lead to better results in specific domains/environments
 - Algorithm adaptations lead to the most significant improvements in the past:
 - DQN \rightarrow SAC
 - REINFORCE \rightarrow PPO
 - Both are interpretable