## Kahoot!

AlexNet

## DL Lecture Quiz 10 (2021)

1 play · 40 players A private kahoot Questions (7) 1 - Quiz 30 sec NAS differs from HPO in that ... NAS also optimizes architectural hyperparameters X NAS can be solved using gradient descent (e.g., DARTS) NAS only optimizes architectural hyperparameters HPO is a simpler variant of NAS 2 - Quiz 60 sec In the evaluation pictured below, which of the following architectures is/are Pareto Optimal? ResNet-50 Inception-v4 **VGG-19** 

3 - Quiz Which of the following is historically the first NAS approach?  20 sec			
	Neuroevolution	<b>✓</b>	
<b>•</b>	Reinforcement Learning	×	
	Bayesian Optimization	×	
	Differentiable Architecture Search	×	
4 - Quiz Which of these performs best at Black Box NAS currently?			
	Reinforcement Learning	×	
<b>•</b>	Bayesian Optimization	✓	
	Evolutionary Algorithms	✓	
	Random Search	×	
	5 - Quiz In the Regularized Evolution approach [Real et al, 2019],  30		
	Architectures are evolved	<b>✓</b>	
•	Model weights are learned using gradient descent	<b>✓</b>	
	Architectures are learned using gradient decent	×	
	Model weights are evolved	×	

6 - Quiz  Which of the following are true for general exact network  morphisms?			
	Leave output of network unchanged	<b>~</b>	
<b>•</b>	Always increase network capacity	<b>✓</b>	
	Always decrease network capacity	×	
	Always improve performance	×	
7 - Quiz Which of the following is a failure-mode/issue of DARTS (relative to Black Box NAS methods)?		20 sec	
	High memory requirements	<b>✓</b>	
<b>•</b>	High sensitivity to its hyper-parameters	<b>✓</b>	
	High compute time requirements	×	
	High complexity of the learned architectures	×	