AlphaGo

alert only current bullet
show souces in the footnotes of presentation
■ UpperCase for All Frametitles
▼ know
the sigmoid function
internals of neural network
★ bring to Spring School
✓ Shampoo
✓ deo
▼ Towel
✓ vitaminy

wireless mouse
✓ USB flash
workout sheet
ESFR magazin pro Jirku
✓ video
✓ YT

	✓	YT agt
	✓	github agt
	✓	on 3 slideshares
4	ha	.matfyz.cz
	/	video
	✓	slideshares
✓	sei	nd final ppt and video
	✓	spring
	✓	Michal Pokorny
	✓	Tomas Valla
	✓	Tomas Svab
	✓	Milan Hladik
	✓	Jiri Vyskocil
		✓ CERN Deep Learning
	✓	Petr Vyhlas
		✓ Singularity
		✓ W8 but why
✓	intı	ro (title slide)
	✓	my mum heard the news, even though she's neither a scientist nor an engineer
	/	no spoilers for people who read news or handouts in advance
✓	co	ol Al apps
	•	spam email
	•	text completion on Smartphone
	•	painting AI
	•	recommender systems
	•	recognizers: Shazam, Soundhound
	•	source code generation
	/	music generation
	✓	https://twitter.com/deepdrumpf by [author] from MIT
		✓ \cite url
	✓	ATARI game player

	/	xked comics: man vs. Al in games
✓	su	pervised learning
	/	training
	•	regression
	/	overfitting
	✓	mention KGS as the data set
	/	MSE
4	rei	nforcement learning
	/	picture / scheme by DS
✓	M	CTS
	✓	tree-search
		★ tackled by heuristics
	✓	MCTS
	/	MCTS rollout = ?
✓	ne	ural nets
	✓	~ optimize (in general non-convex) function
	/	general (1st slide)
		✓ (stochastic) gradient descent
	✓	DNN
		hiearchy of reading letters (Kurzweil)
		CNN
	/	DCNN
		✓ use df from the paper: They use many layers of neurons,
✓	_	es of Go
	4	psychology

Backgammon: man vs. chance (dice) Chess: man vs. man (tactics) Go: man vs. himself (strategy & positioning) cite Robert Samal vs Karel Kral two rules include diagrams komi(dashi) scoring Go ranks kyu / dan ~ karate, jiu-jitsu choco break?? AlphaGo: inside out dreaming: Figure 5 when explaining rollout policy 2 us insted of 3ms for SL SL policy net ✓ 13 layer 30 million positions (dataset from KGS Go Server) Search ✓ Figure 3 (CPU and GPU) strong in... plots: figure 2 ✓ results Figure 2 -> strength mention http://pachi.or.cz/ ✓ vs Fan Hui ✓ VS LS different from Fan Hui: LS would beat FH in 97/100 games Lee Sedol's quote: "I'm sure..." conclusion

nothing in the alg is specific to Go -> solve general problems Thank you! Questions without pause Robert vs Karel picture backup slides diagrams of games between A vs. Fan Hui diagrams of games between A vs. Lee Sedol further reading ✓ AI Al w8 but why https://youtu.be/hPKJBXkyTKM Singularity is Near ✓ RL http://reinforcementlearning.ai-depot.com/ Machine Learning 2 min papers Neuroscience http://www.brainfacts.org/ Comb Game Theory Deep Learning DeepMind Atari Player Deep Q Learning Neural Turing Machine AlphaGo http://googleresearch.blogspot.cz/2016/01/alphago-mastering-ancient-gamehttp://www.nature.com/news/google-ai-algorithm-masters-ancient-game-ofgo-1.19234 **4** https://www.reddit.com/r/baduk/comments/49y17z/the_true_strength_of_alphago/ references AlphaGo @opt seminar omez. podminky @Hladik handout @Hladik?

/	cou	uch surfing Jiri Vyskocil
•	eve	ent on Fb
/	dl /	\tari video
	*	http://www.clipconverter.cc/convert/_0GtrilG/
/	tes	t \printbibliography (does it show extra?)
*	ren	nove
	•	autoreply
	•	baby names
	✓	deephear
	/	1-frame Cepheus
	/	deep networks
	✓	NNs' board evals -> backup slides
/	ade	d
	4	Why CNN?
	•	Ke Jie
	/	Artist Al 3
	*	Opt Seminar, 20th April 2016
	*	https://youtu.be/NJarxpYyoFl
	*	Martin Mueller's Dissertation
	/	https://youtu.be/qWcfiPi9gUU
	✓	SL vs UL: better explanation: pics?
	*	Lee Sedol vs AlphaGo (YouTube)
	*	Game of Thrones Generated
/	say	/
	✓	Overfitting
		From time to time it might work. One such example is prof. Loebl, where you have chances of passing exams by simply memorizing everything.
		If you tried the same trick with my supervisor, Milan Hladik, you would fail. Terribly.
	*	Samal vs Kral
	✓	Hladik

✓ mouse
✓ USB with pdfs
✓ kosile
☑ @T. Svab BIRTHDAY!!!
✓ YT vs Lee Sedol
git commit all
★ ha.matfyz.cz
✓ CV @ ShareLaTeX
send to Spring et al.
✓ AlphaGo
✓ include overview picture
✓ Thm: superhuman Ivl
✓ AlphaGo @DISCO ETHZ
✓ reduce to 15 min
✓ Cepheus
3 pauses

- www.goratings.org
 - ✓ update
- - el. konvertor
 - ✓ laptop, nabijecka

 - ✓ USB drive
- ★ Bring from Zurich
- - ABBA background
 - I'm happy to be welcomed in your DISCO group...
 - ... and thank you for the music of your ideas