NLP 资料索引

李嘉伟 jwlig@iflytek.com iflytek Research

Last Updated:July 23, 2019

Contents

1	预训练模型															3										
	1.1	ELMo													 				 •	 			 •			3
		1.1.1	原理	<u>?</u>											 					 			 •		. .	3
		1.1.2	源矼	. .											 					 			 •			3
	1.2	XLnet													 				 •	 					. .	3
2	文本	匹配																								3
	2.1	ESIM				• •								•	 			•	 •	 	•	 •	 •			3
		2.1.1	原理	<u>?</u>										•	 				 •	 			 •			3
		2.1.2	源矼	· .										•	 					 					. .	3
3	不完	全信息	斿戏	AI																						4
	3.1	Pluribu	1S .												 				 •	 			 •			4
		3.1.1	教程	<u>.</u>											 					 			 •		. .	4
		312	论文																 _							4

1 预训练模型

1.1 ELMo

1.1.1 原理

- 1. https://blog.csdn.net/Magical_Bubble/article/details/89160032#_PyTorch_106
- 2. http://shomy.top/2019/01/01/elmo-1/

1.1.2 源码

1. https://github.com/cnt-dev/pytorch-fast-elmo

1.2 XLnet

1. https://medium.com/@xlnet.team/a-fair-comparison-study-of-xlnet-and-bert-with-lar
ge-models-5a4257f59dc0

2 文本匹配

2.1 ESIM

2.1.1 原理

 https://terrifyzhao.github.io/2019/05/20/%E6%96%87%E6%9C%AC%E5%8C%B9%E9%85%8D%E6%A 8%A1%E5%9E%8B%E4%B9%8BESIM.html

2.1.2 源码

3 不完全信息游戏 AI

3.1 Pluribus

3.1.1 教程

- Keynote "New Results for Solving Imperfect-Information Games" at the Association for the Advancement of Artificial Intelligence Annual Conference (AAAI), 2019, available on Vimeo. (https://vimeo.com/313942390)
- 2. Keynote "Super-Human AI for Strategic Reasoning: Beating Top Pros in Heads-Up No-Limit Texas Hold' em" at the International Joint Conference on Artificial Intelligence (IJCAI), available on YouTube. (https://www.youtube.com/watch?v=xrWulRY_t1o)

3.1.2 论文

- Solving Imperfect-Information Games. (http://www.cs.cmu.edu/~sandholm/Solving%20games.Science-2015.pdf) Science 347(6218), 122-123, 2015.
- Abstraction for Solving Large Incomplete-Information Games. (http://www.cs.cmu.edu/~sandholm/game%20abstraction.aaai15SMT.pdf) In AAAI, Senior Member Track, 2015.
- 3. The State of Solving Large Incomplete-Information Games, and Application to Poker. (http://www.cs.cmu.edu/~sandholm/solving%20games.aimag11.pdf) AI Magazine, special issue on Algorithmic Game Theory, Winter, 13-32, 2010.
- 4. Brown, N. and Sandholm, T. 2019. Superhuman AI for multiplayer poker. (https://science.sciencemag.org/content/early/2019/07/10/science.aay2400) Science, July 11th.
- 5. Farina, G., Kroer, C., and Sandholm, T. 2019. Regret Circuits: Composability of Regret Minimizers. In Proceedings of the International Conference on Machine Learning (ICML), 2019. arXiv version. (https://arxiv.org/abs/1811.02540)
- 6. Farina, G., Kroer, C., Brown, N., and Sandholm, T. 2019. Stable-Predictive Optimistic Counterfactual Regret Minimization. In ICML. arXiv version. (https://arxiv.org/pdf/1902.04982.pdf)
- Brown, N, Lerer, A., Gross, S., and Sandholm, T. 2019. Deep Counterfactual Regret Minimization In ICML. Early version (https://arxiv.org/pdf/1811.00164.pdf) in NeurIPS-18 Deep RL Workshop, 2018.
- 8. Brown, N. and Sandholm, T. 2019. Solving Imperfect-Information Games via Discounted Regret Minimization (https://arxiv.org/pdf/1809.04040.pdf). In Proceedings of the AAAI Conference on Artificial Intelligence (AAAI). Outstanding Paper Honorable Mention, one of four papers receiving special recognition out of 1,150 accepted papers and 7,095 submissions.

- 9. Farina, G., Kroer, C., and Sandholm, T. 2019. Online Convex Optimization for Sequential Decision Processes and Extensive-Form Games (http://www.cs.cmu.edu/~gfarina/2018/laminar-reg ret-aaai19/). In Proceedings of the AAAI Conference on Artificial Intelligence (AAAI).
- 10. Marchesi, A., Farina, G., Kroer, C., Gatti, N., and Sandholm, T. 2019. Quasi-Perfect Stackelberg Equilibrium (http://www.cs.cmu.edu/~gfarina/2018/qp-stackelberg-aaai19/). In Proceedings of the AAAI Conference on Artificial Intelligence (AAAI).
- 11. Farina, G., Kroer, C., Brown, N., and Sandholm, T. 2019. Stable-Predictive Optimistic Counterfactual Regret Minimization (https://arxiv.org/pdf/1902.04982.pdf). arXiv.
- 12. Brown, N. and Sandholm, T. 2018. Superhuman AI for heads-up no-limit poker: Libratus beats top professionals. (http://science.sciencemag.org/content/early/2017/12/15/science.aao173
 3) Science, full Research Article.
- 13. Brown, N., Lerer, A., Gross, S., and Sandholm, T. 2018. Deep Counterfactual Regret Minimization (https://arxiv.org/pdf/1811.00164.pdf). NeurIPS Deep Reinforcement Learning Workshop. Oral Presentation.
- 14. Kroer, C., Waugh, K., Kilinc-Karzan, F., and Sandholm, T. 2018. Faster algorithms for extensive-form game solving via improved smoothing functions. (https://rdcu.be/8EyP) Mathematical Programming, Series A. Abstract published in EC-17.
- 15. Brown, N., Sandholm, T., and Amos, B. 2018. Depth-Limited Solving for Imperfect-Information Games. (https://arxiv.org/pdf/1805.08195.pdf) In Proc. Neural Information Processing Systems (NeurIPS).
- 16. Kroer, C. and Sandholm, T. 2018. A Unified Framework for Extensive-Form Game Abstraction with Bounds. In NIPS. Early version (http://www.cs.cmu.edu/~ckroer/papers/unified_abstraction_framework_ai_cubed.pdf) in IJCAI-18 AI3 workshop.
- 17. Farina, G., Gatti, N., and Sandholm, T. 2018. Practical Exact Algorithm for Trembling-Hand Equilibrium Refinements in Games. (http://www.cs.cmu.edu/~gfarina/2017/trembling-lp-refinements-nips18/) In NeurIPS.
- 18. Kroer, C., Farina, G., and Sandholm, T. 2018. Solving Large Sequential Games with the Excessive Gap Technique. (https://arxiv.org/abs/1810.03063) In NeurIPS. Also Spotlight presentation.
- 19. Farina, G., Celli, A., Gatti, N., and Sandholm, T. 2018. Ex Ante Coordination and Collusion in Zero-Sum Multi-Player Extensive-Form Games. (http://www.cs.cmu.edu/~gfarina/2018/collusion-3players-nips18/) In NeurIPS.
- 20. Farina, G., Marchesi, A., Kroer, C., Gatti, N., and Sandholm, T. 2018. Trembling-Hand Perfection in Extensive-Form Games with Commitment. (http://www.cs.cmu.edu/~ckroer/papers/stackelberg_perfection_ijcai18.pdf) In IJCAI.

- 21. Kroer, C., Farina, G., and Sandholm, T. 2018. Robust Stackelberg Equilibria in Extensive-Form Games and Extension to Limited Lookahead. (http://www.cs.cmu.edu/~ckroer/papers/robust.aaai18.pdf) In Proc. AAAI Conference on AI (AAAI).
- 22. Brown, N., and Sandholm, T. 2017. Safe and Nested Subgame Solving for Imperfect-Information Games. (https://www.cs.cmu.edu/~noamb/papers/17-NIPS-Safe.pdf) In NIPS. Best Paper Award, out of 3,240 submissions.
- 23. Farina, G., Kroer, C., Sandholm, T. 2017. Regret Minimization in Behaviorally-Constrained Zero-Sum Games. (http://www.cs.cmu.edu/~sandholm/behavioral.icml17.pdf) In Proc. International Conference on Machine Learning (ICML).
- 24. Brown, N. and Sandholm, T. 2017. Reduced Space and Faster Convergence in Imperfect-Information Games via Pruning. (http://www.cs.cmu.edu/~sandholm/reducedSpace.icml17.pdf) In ICML.
- 25. Kroer, C., Farina, G., Sandholm, T. 2017. Smoothing Method for Approximate Extensive-Form Perfect Equilibrium. (http://www.cs.cmu.edu/~sandholm/smoothingEFPE.ijcai17.pdf) In IJ-CAI. ArXiv version. (http://arxiv.org/abs/1705.09326)
- 26. Brown, N., Kroer, C., and Sandholm, T. 2017. Dynamic Thresholding and Pruning for Regret Minimization. (http://www.cs.cmu.edu/~sandholm/dynamicThresholding.aaai17.pdf) In AAAI.
- 27. Kroer, C. and Sandholm, T. 2016. Imperfect-Recall Abstractions with Bounds in Games. (http://www.cs.cmu.edu/~sandholm/imperfect-recall-abstraction-with-bounds.ec16.pdf) In Proc. ACM Conference on Economics and Computation (EC).
- 28. Noam Brown and Tuomas Sandholm. 2016. Strategy-Based Warm Starting for Regret Minimization in Games. In AAAI. Extended version with appendix. (http://www.cs.cmu.edu/~sandholm/warmStart.aaai16.withAppendixAndTypoFix.pdf)
- 29. Noam Brown and Tuomas Sandholm. 2015. Regret-Based Pruning in Extensive-Form Games. (
 http://www.cs.cmu.edu/~sandholm/cs15-892F15) In NIPS. Extended version. (http://www.cs
 .cmu.edu/~sandholm/regret-basedPruning.nips15.withAppendix.pdf)
- 30. Brown, N. and Sandholm, T. 2015. Simultaneous Abstraction and Equilibrium Finding in Games. (http://www.cs.cmu.edu/~sandholm/simultaneous.ijcai15.pdf) In IJCAI.
- 31. Kroer, C. & Sandholm, T. 2015. Limited Lookahead in Imperfect-Information Games. (http://www.cs.cmu.edu/~sandholm/limited-look-ahead.ijcai15.pdf) IJCAI.
- 32. Kroer, C., Waugh, K., Kilinc-Karzan, F., and Sandholm, T. 2015. Faster First-Order Methods for Extensive-Form Game Solving. (http://www.cs.cmu.edu/sandholm/faster.ec15.pdf) In EC.
- 33. Brown, N., Ganzfried, S., and Sandholm, T. 2015. Hierarchical Abstraction, Distributed Equilibrium Computation, and Post-Processing, with Application to a Champion No-Limit Texas Hold' em Agent. (http://www.cs.cmu.edu/~sandholm/hierarchical.aamas15.pdf) In Proc. Internat. Conference on Autonomous Agents and Multiagent Systems (AAMAS).

- 34. Kroer, C. and Sandholm, T. 2015. Discretization of Continuous Action Spaces in Extensive-Form Games. (http://www.cs.cmu.edu/~sandholm/discretization.aamas15.fromACM.pdf) In AA-MAS.
- 35. Ganzfried, S. and Sandholm, T. 2015. Endgame Solving in Large Imperfect-Information Games. (http://www.cs.cmu.edu/~sandholm/endgame.aamas15.fromACM.pdf) In AAMAS.
- 36. Kroer, C. and Sandholm, T. 2014. Extensive-Form Game Abstraction With Bounds. (http://www.cs.cmu.edu/~sandholm/extensiveGameAbstraction.ec14.pdf) In EC.
- 37. Brown, N. and Sandholm, T. 2014. Regret Transfer and Parameter Optimization. (http://www.cs.cmu.edu/~sandholm/regret_transfer.aaai14.pdf) In AAAI.
- 38. Ganzfried, S. and Sandholm, T. 2014. Potential-Aware Imperfect-Recall Abstraction with Earth Mover's Distance in Imperfect-Information Games. (http://www.cs.cmu.edu/~sandholm/potential-aware_imperfect-recall.aaai14.pdf) In AAAI.
- 39. Ganzfried, S. and Sandholm, T. 2013. Action Translation in Extensive-Form Games with Large Action Spaces: Axioms, Paradoxes, and the Pseudo-Harmonic Mapping. (http://www.cs.cmu.edu/~sandholm/reverse%20mapping.ijcai13.pdf) In IJCAI.
- 40. Sandholm, T. and Singh, S. 2012. Lossy Stochastic Game Abstraction with Bounds. (http://www.cs.cmu.edu/~sandholm/lossyStochasticGameAbstractionWBounds.ec12.pdf) In EC.
- 41. Gilpin, A., Peña, J., and Sandholm, T. 2012. First-Order Algorithm with O(ln(1/epsilon)) Convergence for epsilon-Equilibrium in Two-Person Zero-Sum Games. (http://www.cs.cmu.edu/~sandholm/restart.MathProg12.pdf) Mathematical Programming 133(1-2), 279-298. Subsumes our AAAI-08 paper.
- 42. Ganzfried, S., Sandholm, T., and Waugh, K. 2012. Strategy Purification and Thresholding: Effective Non-Equilibrium Approaches for Playing Large Games. (http://www.cs.cmu.edu/~sandholm/StrategyPurification_AAMAS2012_camera_ready_2.pdf) In AAMAS.
- 43. Ganzfried, S. and Sandholm, T. 2012. Tartanian5: A Heads-Up No-Limit Texas Hold'em Poker-Playing Program. (http://www.cs.cmu.edu/~sandholm/Tartanian_ACPC12_CR.pdf) Computer Poker Symposium at AAAI.
- 44. Hoda, S., Gilpin, A., Peña, J., and Sandholm, T. 2010. Smoothing techniques for computing Nash equilibria of sequential games. (http://www.cs.cmu.edu/~sandholm/proxtreeplex.MathOfOR.pdf) Mathematics of Operations Research 35(2), 494-512.
- 45. Ganzfried, S. and Sandholm, T. 2010 Computing Equilibria by Incorporating Qualitative Models (
 http://www.cs.cmu.edu/~sandholm/qualitative.aamas10.pdf). In AAMAS. Extended version
 (http://www.cs.cmu.edu/~sandholm/qualitative.TR10.pdf): CMU technical report CMU-CS10-105.
- 46. Gilpin, A. and Sandholm, T. 2010. Speeding Up Gradient-Based Algorithms for Sequential Games (Extended Abstract) (http://www.cs.cmu.edu/~sandholm/speedup.aamas10.pdf). In AAMAS.

- 47. Ganzfried, S. and Sandholm, T. 2009. Computing Equilibria in Multiplayer Stochastic Games of Imperfect Information (http://www.cs.cmu.edu/~sandholm/stochgames.ijcai09.pdf). In IJ-CAI.
- 48. Gilpin, A. and Sandholm, T. 2008. Expectation-Based Versus Potential-Aware Automated Abstraction in Imperfect Information Games: An Experimental Comparison Using Poker. (http://www.cs.cmu.edu/~sandholm/expectation-basedVsPotential-Aware.AAAI08.pdf) In AAAI.
- 49. Ganzfried, S. and Sandholm, T. 2008. Computing an Approximate Jam/Fold Equilibrium for 3-Agent No-Limit Texas Hold'em Tournaments. (http://www.cs.cmu.edu/~sandholm/3-player% 20jam-fold.AAMAS08.pdf) In AAMAS.
- 50. Gilpin, A., Sandholm, T., and Sørensen, T. 2008. A heads-up no-limit Texas Hold'em poker player: Discretized betting models and automatically generated equilibrium-finding programs. (http://www.cs.cmu.edu/~sandholm/tartanian.AAMASO8.pdf) In AAMAS.
- 51. Gilpin, A. and Sandholm, T. 2007. Lossless abstraction of imperfect information games (http://www.cs.cmu.edu/~sandholm/extensive.jacm07.pdf). Journal of the ACM, 54 (5). Early versions in EC-06.
- 52. Gilpin, A., Sandholm, T., and Sørensen, T. 2007. Potential-Aware Automated Abstraction of Sequential Games, and Holistic Equilibrium Analysis of Texas Hold'em Poker. (http://www.cs.cmu.edu/~sandholm/gs3.aaai07.pdf) In AAAI.
- 53. Gilpin, A. and Sandholm, T. 2007. Better automated abstraction techniques for imperfect information games, with application to Texas Hold'em poker. (http://www.cs.cmu.edu/~sandholm/gs2.aamas07.pdf) In AAMAS.
- 54. Gilpin, A. and Sandholm, T. 2006. A competitive Texas Hold'em Poker player via automated abstraction and real-time equilibrium computation. (http://www.cs.cmu.edu/~sandholm/texas.aaai06.pdf) In AAAI.