

Libratus: Beating Top Humans in No-Limit Poker

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Abstract

Poker has been a challenge problem in AI and game theory for decades. As a game of imperfect information, poker involves obstacles not present in games like chess or go. No program has been able to beat top professionals in large poker games, until now. In January 2017, our AI Libratus decisively defeated a team of the top professional players in heads-up no-limit Texas Hold'em. Libratus features a number of innovations which form a new approach to AI for imperfect-information games. The algorithms are domain-independent and are widely applicable to any strategic interaction involving hidden information.

Bio

Noam Brown is a PhD student in computer science at Carnegie Mellon University advised by Professor Tuomas Sandholm. His research combines reinforcement learning and game theory to develop AIs capable of strategic reasoning in imperfect-information interactions. He has applied this research to creating Libratus, the first AI to defeat top professional poker players in no-limit Texas Hold'em. His current research is focused on expanding the applicability of the technology behind Libratus to other domains.

Faculty Host: Abdeslam Boularias, Please contact Abdeslam Boularias (boularias@gmail.com) for arranging meetings with the guest speaker after his talk.