Prof. R. Wattenhofer

Tichu Bot

Currently, deep reinforcement learning is setting the state of the art in many strategic games such as Go or Chess. Algorithms can also handle incomplete information (as in Texas Hold'em) and playing with cooperating agents (as in Dota2). Therefore, we see all prerequisites given for developing a RL-based bot to play the famous card game Tichu. For the final solution, we will try to arrange a match against the currently reigning ETH Tichu champions. Will AI be able to dethrone humanity in yet another game?

Tichu[1] is a cardgame made and enjoyed in Switzerland. Two teams of two players try to play all cards on their hand as fast as possible while scoring points. In the beginning each player gives one card to each other player (called "Schupfen"). Bonus points can be scored by announcing and completing to finish first.

Requirements: Prior experience or a strong interest in machine learning, in particular reinforcement learning are recommended, programming experience is required. We also suggest enjoying the game itself. We will have weekly meetings to address questions, discuss progress and think about future ideas.

Interested? Please contact us for more details!

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[1] https://de.wikipedia.org/wiki/Tichu