




# AlphaGo

CODEGIRLS2016

# 下棋的机器人/人工智能

- ▶ Board games: chess, checkers, backgammon etc.
- ▶ Classic AI: A\* search etc.
- ▶ Reinforcement learning: learning based on a signal from the environment
- ▶ Alphago has three components: supervised policy network, reinforcement policy network, value network
- ▶ Why can we use convolutional neural networks in the value and policy networks?
- ▶ Incorporated with Monte Carlo Tree Search
- ▶ Objective of model is to not win more stones, but maximize probability of winning

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- ▶ Compare with Deep Blue: Alphago evaluated fewer positions, but more precisely with its value network, and places moves intelligently using the policy network; Alphago does not use handcrafted value functions, but general-purpose methods which are trained through game-play