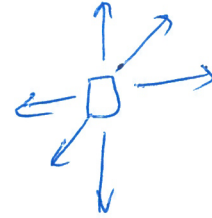
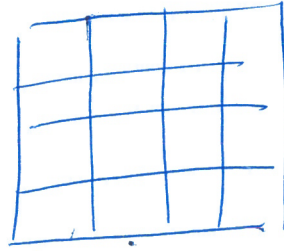


CS4811

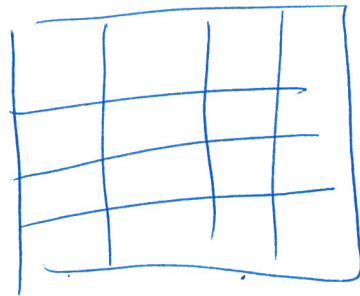
Feb. 6, 2017

Monday ①

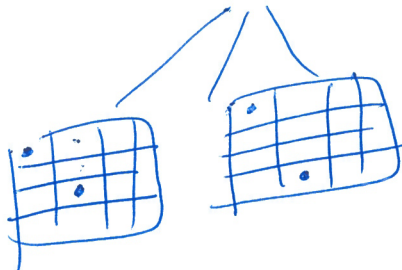
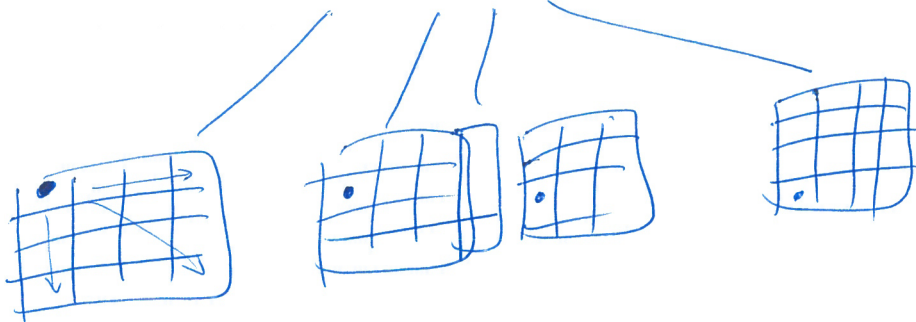
Hill climbing (local search)



n -queens $n \times n$

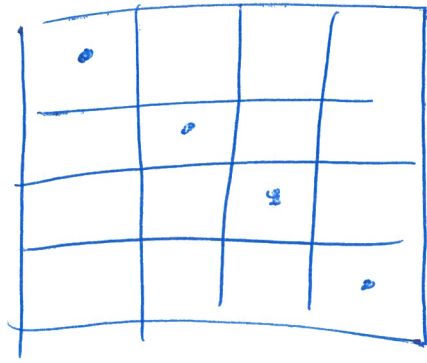


q_1 q_2 q_3 q_4



same problem with hill climbing

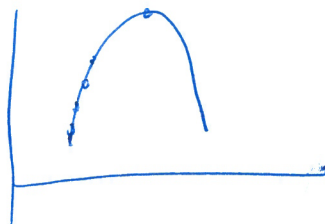
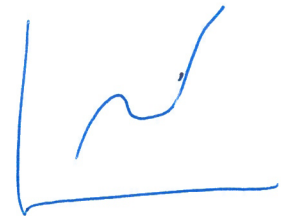
(2)



make this a "better" solution

heuristic = move to a neighbor that has fewer conflicts

Can neural network training be thought of as a hill-climbing procedure? tries to reach a better solution



Bidirectional search

3

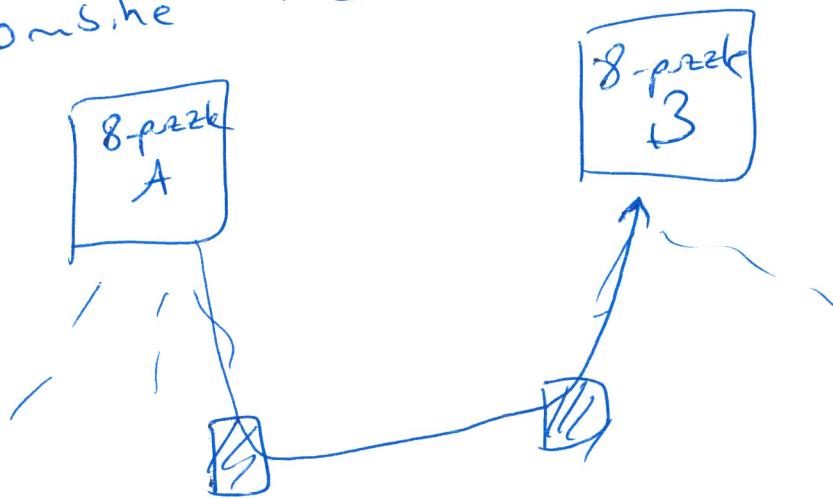
basic idea : start two searches
one from the start



other from the goal



when there is a common node
consider the solutions



loop until solution is found
take node

generate children
put children into frontier

(4)

run from A



run from B



check in the other frontier

