* Rule Based Systems
* Searches
* Game Algorithms
* Constraints
* Nearest Neighbors
* ID Trees, Disorder
* Neural Networks
* Genetic Algorithms
* Boosting
* Support Vector Machines
* Bayes Network

**RULE BASED SYSTEMS**

1. Forward Chaining
2. Backward Chaining

**SEARCHES**

1. Uninformed Searches
   1. Depth-First Search
   2. Breadth-First Search
2. Informed Searches (Heuristic)
   1. Hill Climbing – Greedy
   2. Beam Search – Greedy k-max
3. Optimal Searches (Path Length + Heuristic)
   1. Branch & Bound – Sort by Path Length
   2. A\* - Sort by Path Length + Heuristic

**GAME ALGORITHMS**

Minimax + Alpha-Beta Pruning

* MAX – set alpha
* MIN – set beta

**CONSTRAINTS**

**NEAREST NEIGHBORS**

k = 1,3,5,7...

**ID TREES & DISORDER**

GENETIC ALGORITHMS

* Mutation
* Crossover
* Fitness Functions

ADA BOOST

BAYES NETWORK

* D-Separation

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| not A B | | | | |  | A B | | | | |
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| A |  |  |  | B |  | A |  |  |  | B |
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| A |  |  |  | B |  | A |  |  |  | B |
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