

1.	Analysis of algorithm
	Time complexity
	Space complexity
2.	Sorting
	Insertion sort
	Bubble sort
	Counting sort
	Merge sort
	Quick sort
3.	Searching
	Linear search
	Binary search <ul style="list-style-type: none"> <li>- on discrete domain</li> <li>- on continuous domain)</li> </ul>
	Uninformed search <ul style="list-style-type: none"> <li>- DFS</li> <li>- BFS</li> <li>- Dijkstra</li> <li>- IDDFS</li> <li>- Meet-in-the-middle</li> </ul>
	Informed search <ul style="list-style-type: none"> <li>- A* search</li> <li>- IDA*</li> </ul>
	Local search <ul style="list-style-type: none"> <li>- Random restart hill climb</li> <li>- Simulated annealing</li> <li>- Local beam search</li> <li>- Genetic algorithm</li> </ul>
	Game theoretic search <ul style="list-style-type: none"> <li>- Minimax search</li> <li>- Alpha-beta pruning</li> </ul>
	Constraint satisfaction problem <ul style="list-style-type: none"> <li>- Backtrack</li> <li>- Algorithm x</li> </ul>
4.	Data structure
	BST
	Heap (priority queue)
	Merge sort tree (interval based sorted array)
	Treap (array merge, split and accumulation)
	UFDS (solving connectivity problem )
5.	Dynamic programming
	Subset sum / 0-1 knapsack
	Interval DP
6.	Greedy
	Activity selection
7.	String
	KMP

	Rabin Karp
	Suffix array
8.	Geometry
	Line sweep
	Jarvis march
	Graham scan