**ALL ALGORITHMS**

1. Insert\_sort
2. Choise\_sort
3. Bubble\_sort
4. Merge\_sort
5. Hoar\_sort
6. Eratosthen + using the gmpy2
7. Miller-Rabin test
8. Count\_combinations (M from N) + Factorial
9. Count combinations with repeated simbols
10. Fibonacci
11. Kamenetsky`s algorithm (factorial length)
12. LCM+ GCD
13. Range\_sum
14. Count\_sum\_squares
15. Points in a Gaussian circle
16. Bit\_sum
17. Depth list
18. Counting change combinations
19. Combinations\_with\_replecament
20. Combinations (uniq)
21. Permutations
22. Generate\_permutations
23. All subsets in set
24. Gray code generator
25. Cartesian product
26. Generate parenthesis
27. Count\_way
28. Diagonals
29. Diagonals 2
30. Max submatrix sum (using Kadane`s algorithm (max subarray sum))
31. Max\_sum\_path\_in\_matrix
32. Min\_sum\_path\_in\_matrix
33. Matrix\_product
34. Matrix\_determinant
35. Binary\_search
36. Smaller\_right (using binary search)
37. Longest\_common\_subsequence (subsequence)
38. Longest\_common\_subsequence (len)
39. Levenstein\_distance
40. Largest\_increacing\_subsequence
41. Longest arithmetic subsequence
42. Find\_longest\_substring\_bracket
43. Check\_braces
44. Postfix polish notation
45. Prefix polish notation
46. Convert\_to\_base
47. Stack
48. Queue
49. Deque
50. DoubleLinkedList
51. Linked\_list (simply connected)
52. Binary\_heap
53. HashTable
54. Graph (simple version)
55. Binary Search Tree (my vision) and traversal: pre\_order, in\_order, post\_order
56. Prefix Tree
57. Radix Tree
58. Syntax parse tree (evaluate math expression)
59. LazyInit
60. DFS (Depth first search) (path in matrix). Dfs (count island).
61. BFS (Breadth first search) (path chess knight)
62. Dijkstra`s algorithm (+cheap path in graph)
63. Floyd`s algorithm (min path between two vertices)
64. Prim`s algorithm (minimum spanning tree - MST)
65. Kruckal`s algorithm (minimum spanning tree - MST)
66. Manaker`s algorithm (longest palindrome)
67. Ford-Fulkerson algorithm (max flow in grapf)
68. Knuth-Morris\_Pratt algorithm (search substring in string)
69. Boyer-Moore-Horspool (search substring in string)
70. Optimal number of coins
71. Packing backpack (weight)
72. 0/1 Knapsack problem (items)
73. All sums array
74. All combinations number
75. Integer\_partition
76. Prime\_factorization
77. All divisors of a number
78. Sudoku solver
79. Square sums (hamilthon cycle)
80. Alphabetic anagrams
81. Rail Fence Cipher
82. Interpreter
83. Count bouncy numbers
84. Linear Regression X by Y (and with numpy)
85. Count string subsequence
86. DFS for find all combinations sequence symbols
87. Segment Tree
88. Two`s complement and reverse operetion

**STACK**