# === Tetris Al Genetic Algorithm Report ===

### === Genetic Algorithm Configuration ===

Configuration	Value
Number of GENERATIONS	10
POPULATION_SIZE	12
MUTATION_RATE	0.1
Random Seed	42

#### === Contribution Factors ===

Index	Contribution Factor	Description
[0]	Max height	Height of the tallest column
[1]	Number of removed lines	Number of lines cleared after placing a piece
[2]	New holes	New holes created by the latest piece
[3]	New blocking blocks	New blocks that may block existing holes
[4]	Piece sides	Number of sides of the piece touching other blocks
[5]	Floor sides	Number of sides of the piece touching the floor
[6]	Wall sides	Number of sides of the piece touching the wall
[7]	Total holes	Number of empty cells with filled cells above them
[8]	Total blocking blocks	Number of blocks sitting above holes

# **Evolution of Top Chromosomes Over Generations (Rounded Values)**

Gen	Chromosome	Score
0	[28, -95, -45, -55, 47, 35, 78, -83, -16]	6320
	[-53, -80, -44, 27, -27, -26, -58, -47, 87]	1600
1	[28, -95, -45, -55, 47, 35, 78, -83, -16]	6400
	[-53, -80, -44, 27, -27, -26, -58, -47, 87]	3780
2	[28, -95, -45, -55, 47, 35, 78, -83, -16]	6780
	[-53, -80, -44, 27, 47, 35, 78, -83, -16]	6640
3	[-53, -80, -45, 27, 47, 35, 78, -83, -16]	6800
	[28, -95, -45, -55, 47, 35, 79, -82, -16]	6720
4	[28, -95, -45, -55, 47, 35, 78, -83, -16]	6760
	[-53, -80, -44, 27, 47, 35, 78, -83, -16]	6540
5	[28, -95, -45, -55, 47, 35, 78, -83, -16]	7500
	[-53, -80, -44, 27, 47, 35, 78, -83, -16]	7000
6	[28, -95, -45, -55, 47, 35, 79, -82, -16]	8060
	[28, -95, -45, -55, 47, 35, 78, -83, -16]	7560
7	[-53, -80, -44, -55, 47, 35, 78, -83, -16]	7800
	[28, -95, -45, -55, 47, 35, 78, -83, -16]	7800
8	[-54, -80, -45, -55, 47, 35, 78, -83, -16]	8500
	[28, -95, -45, -55, 47, 35, 79, -82, -16]	7920
9	[28, -95, -45, -55, 47, 35, 79, -82, -16]	8460
	[-54, -80, -45, -55, 47, 36, 78, -82, -16]	7520

### **Evolution of Top Chromosomes Over Generations Plot**

