

Tema 3

Imagini de TEST:

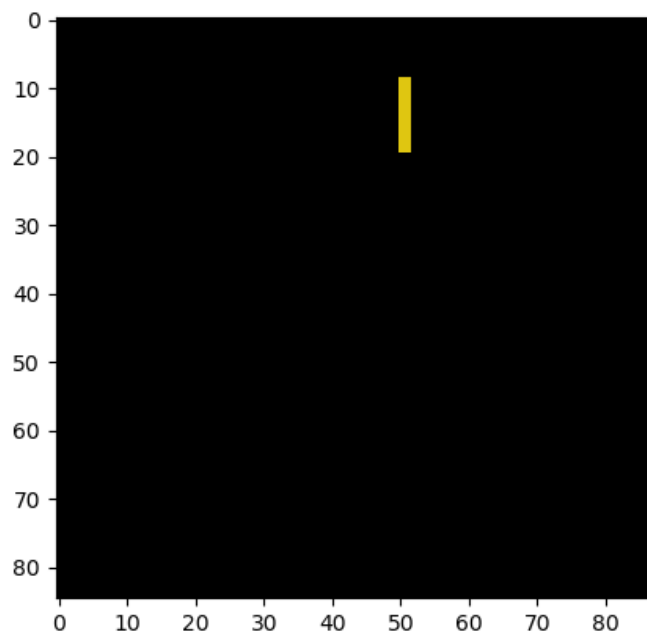


Metoda A:

Daca aplicam algoritmul folosind indivizi cu o singura figura atunci toti indivizii vor tinde la o figura care are fitness-ul cat mai bun, astfel ca in final vom avea toti indivizii foarte asemanatori, suprapunandu-se si neaducand un plus de informatie imaginii:

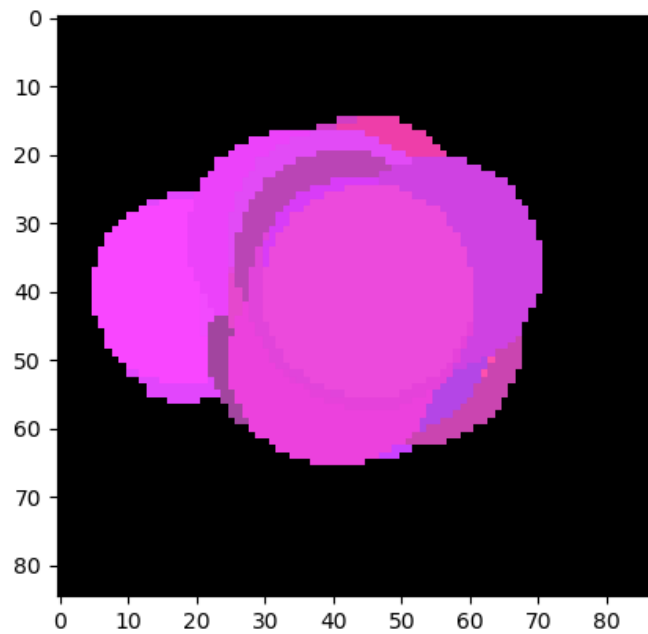
Folosind dreptunghiuri pentru floare:

NR_SHAPES = 1 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.9 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] crossover = random



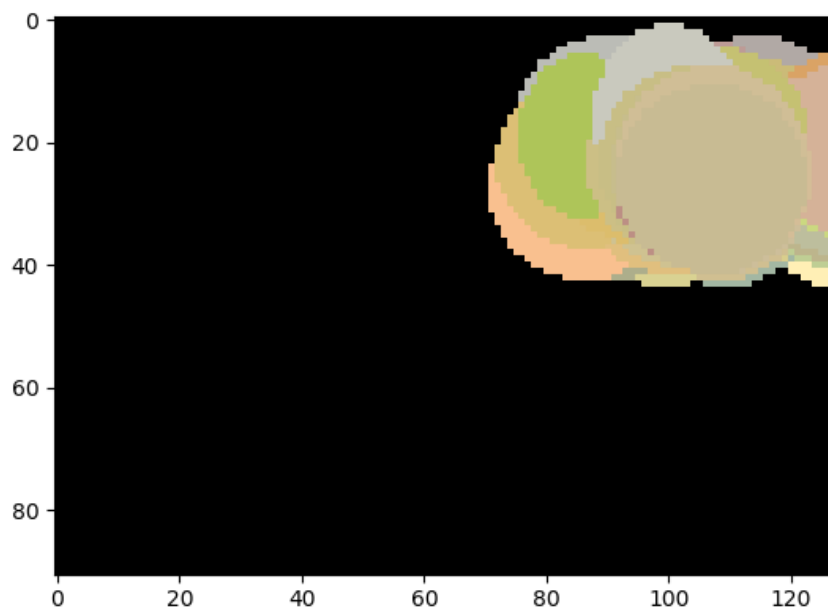
Folosind elipse pentru floare:

NR_SHAPES = 1 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.6 MUTATED_SHAPES = 1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2]



Folosind elipse pentru Mona Lisa:

NR_SHAPES = 1 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.6 MUTATED_SHAPES = 1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2]



Metoda B:

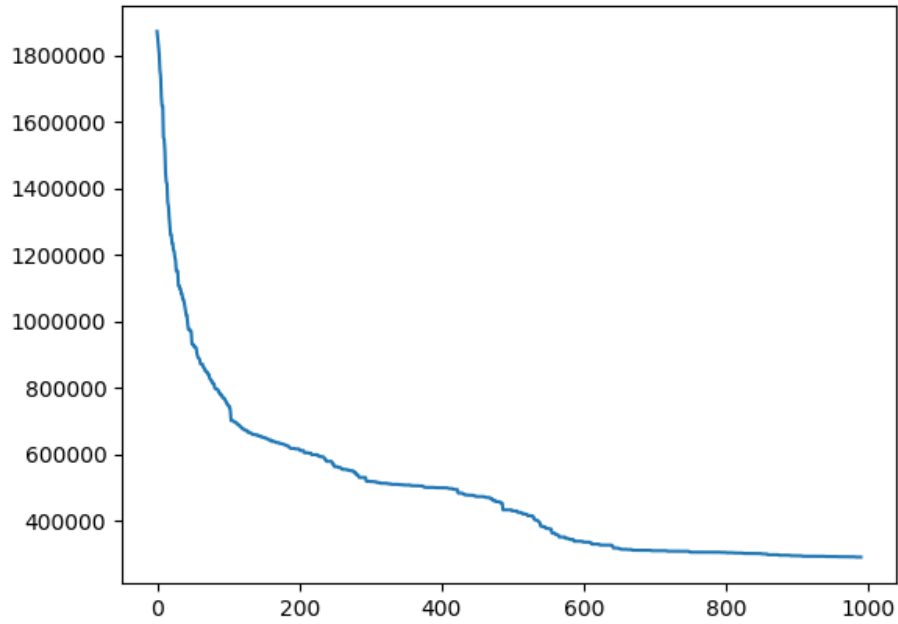
Metoda B are rezultate mult mai bune deoarece functia de fitness tine cont de toate figurile care formeaza imaginea.

Folosind dreptunghiuri pentru floare:

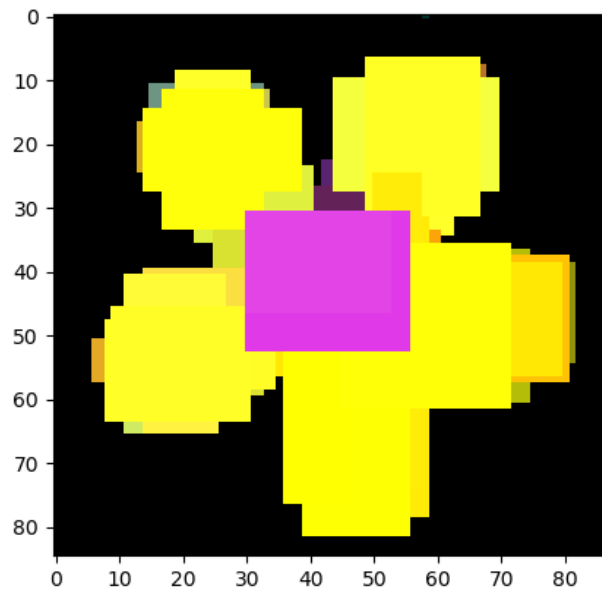
Cel mai bun rezultat a fost obtinut folosind parametrii:

NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.3
MUTATED_SHAPES = 0.1 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

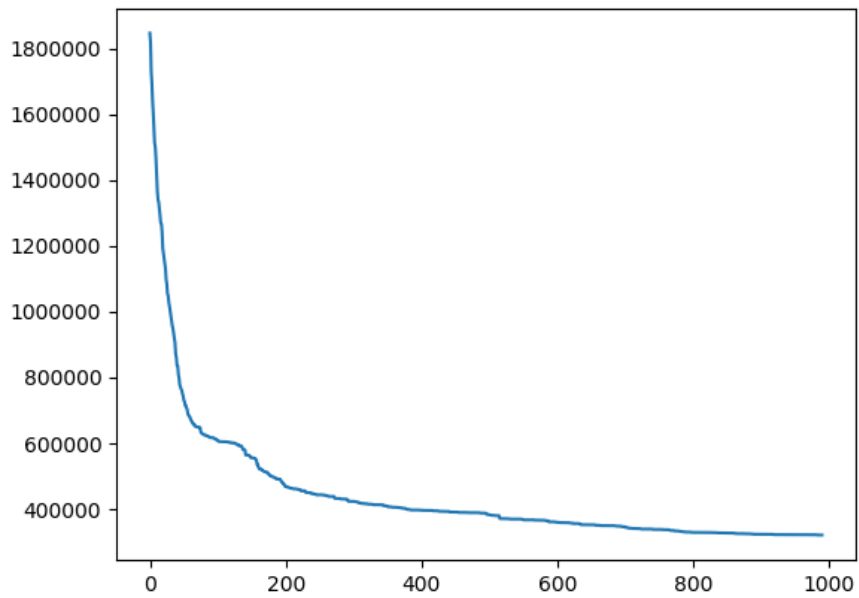


NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

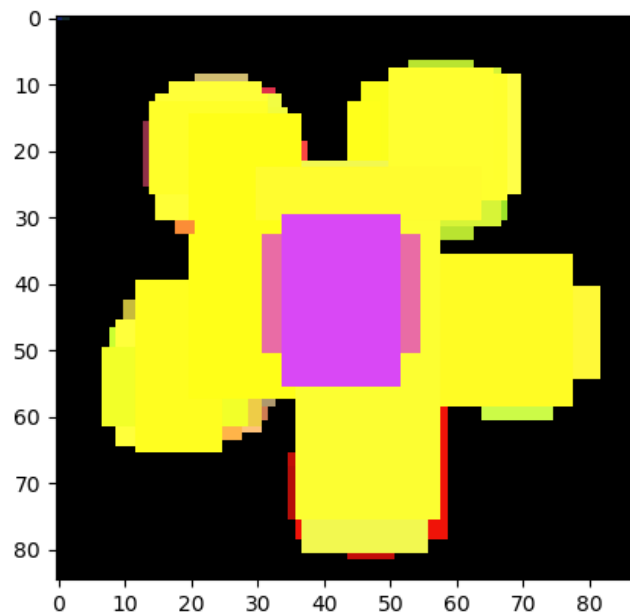


NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.1
MUTATED_SHAPES = 0.1 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

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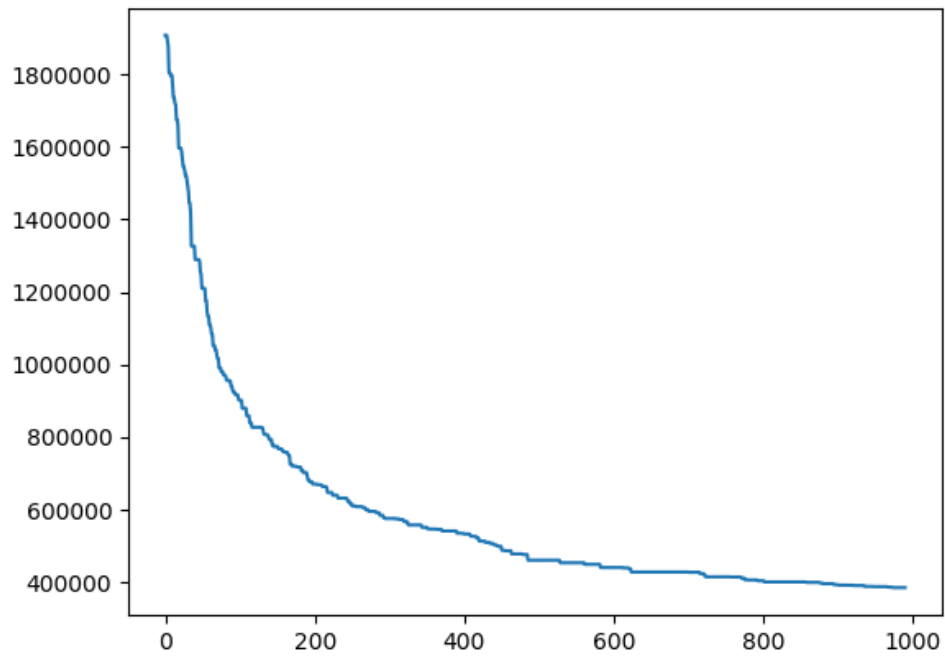


NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.1 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

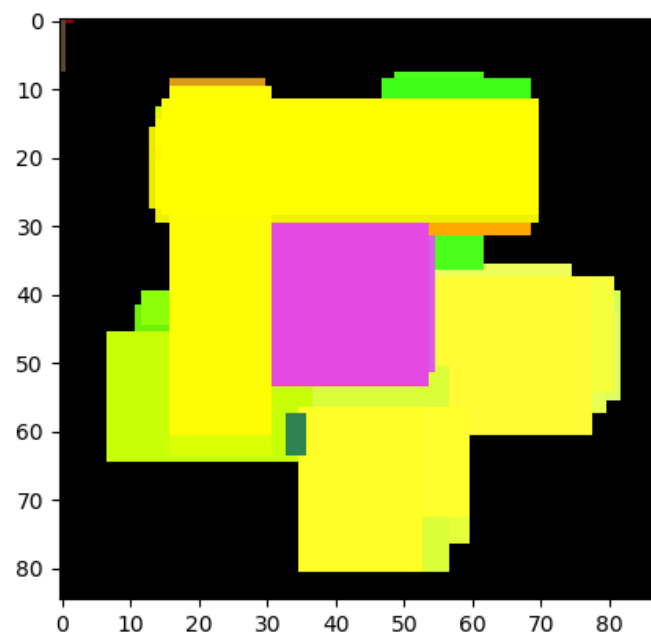


NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.7
MUTATED_SHAPES = 0.1 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.7 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

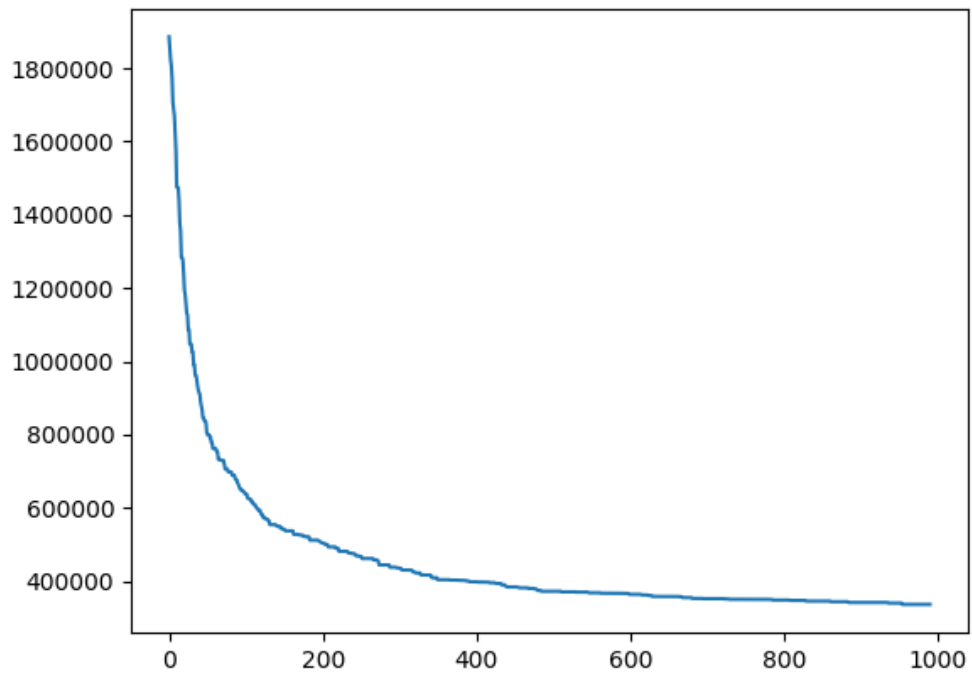


NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.7 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

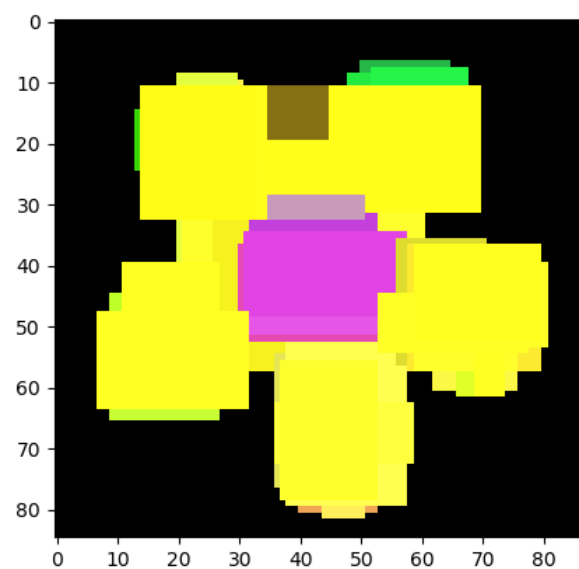


NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.3
MUTATED_SHAPES = 0.3 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

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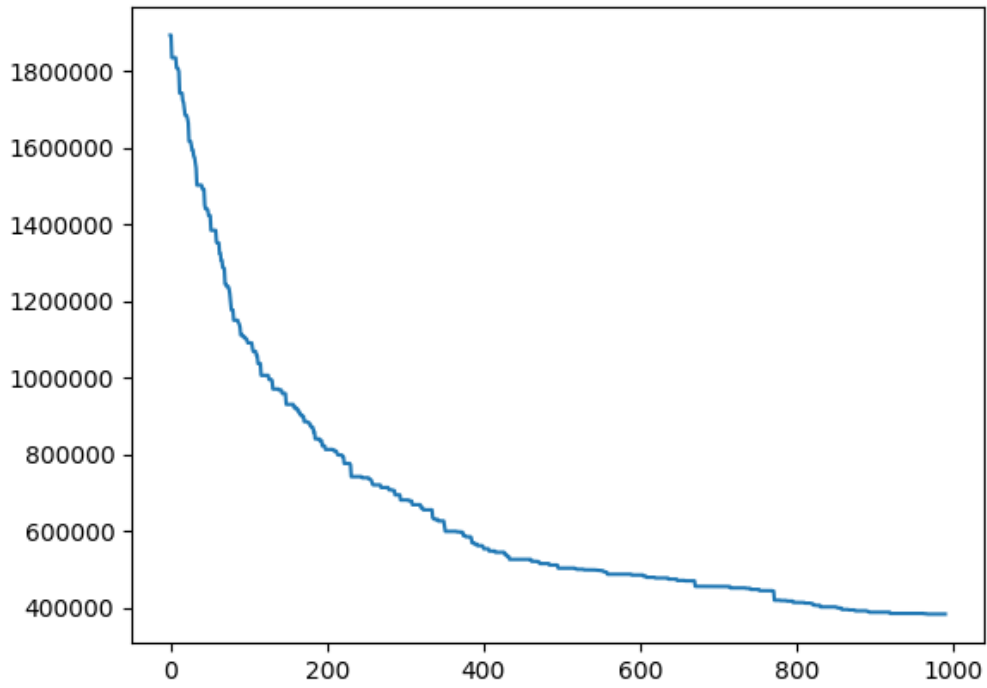


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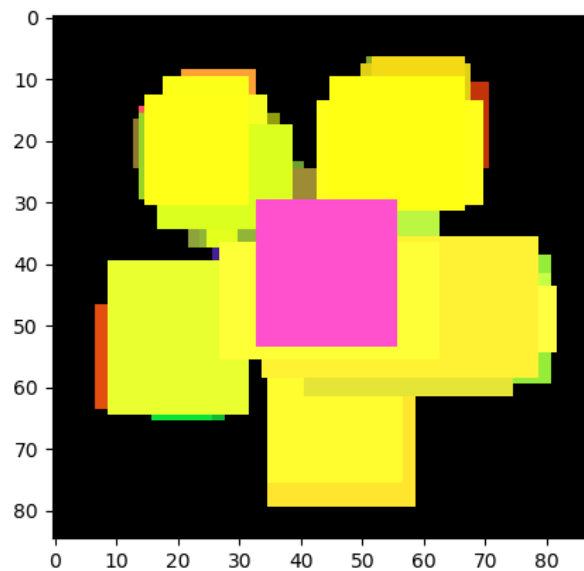


NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.7
MUTATED_SHAPES = 0.7 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.7 MUTATED_SHAPES = 0.7 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

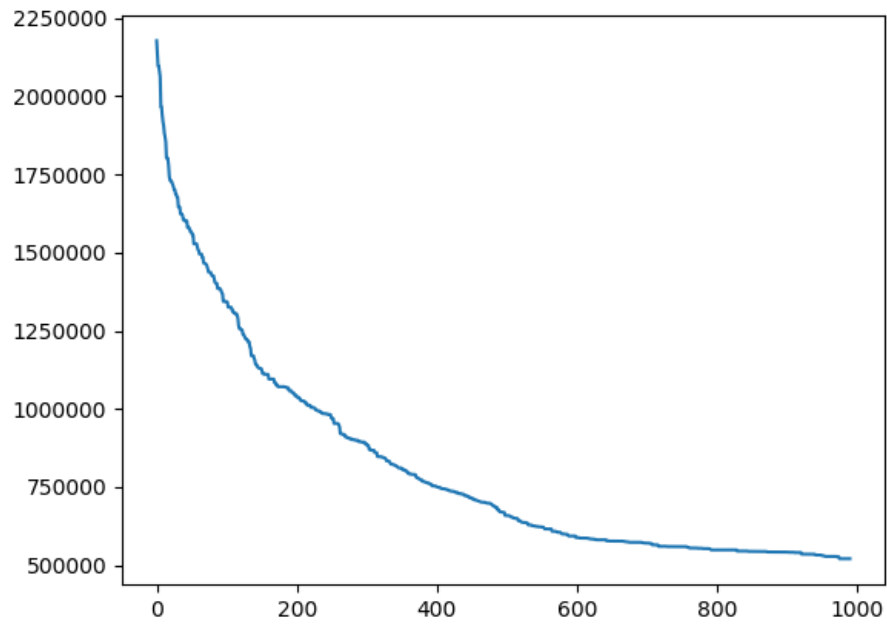


NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.7 MUTATED_SHAPES = 0.7 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

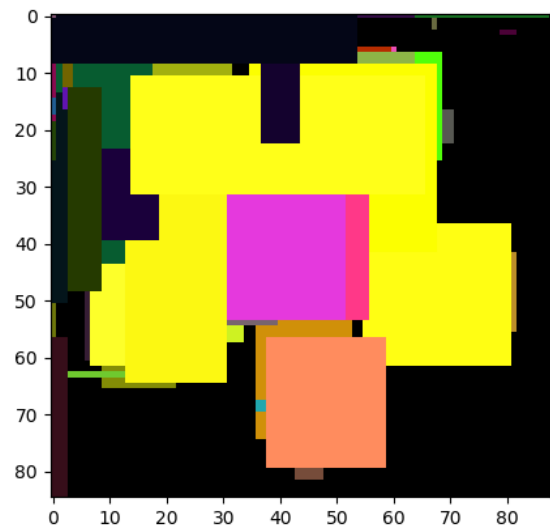


NR_SHAPES = 500 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.3
MUTATED_SHAPES = 0.3 | MUTATED_SHAPES = 0.3 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2]

NR_SHAPES = 500 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.3 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2]



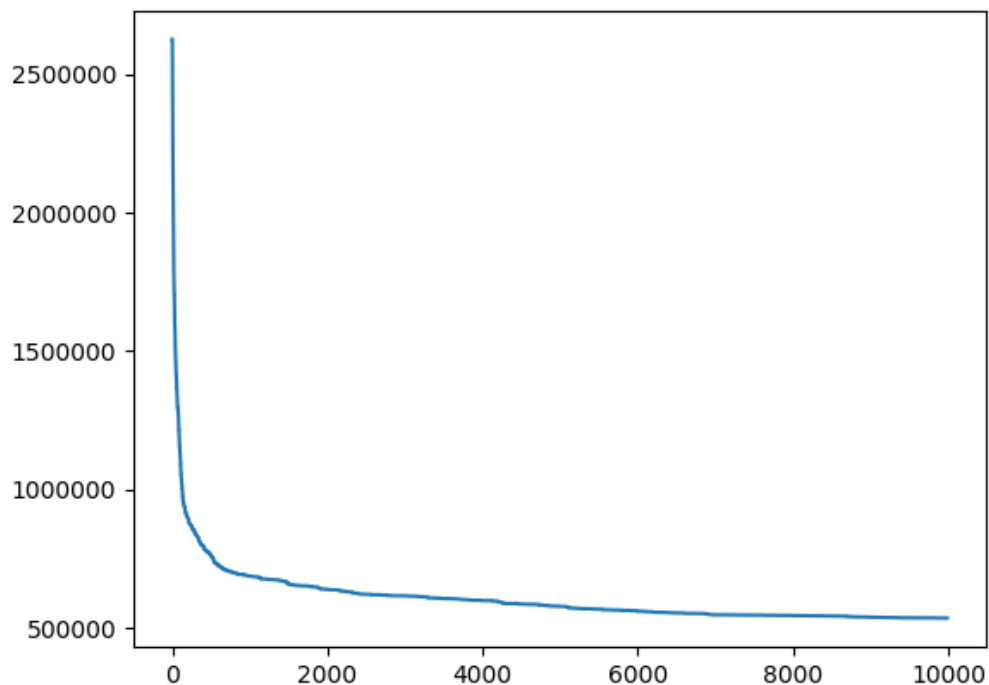
NR_SHAPES = 500 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.3 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2]



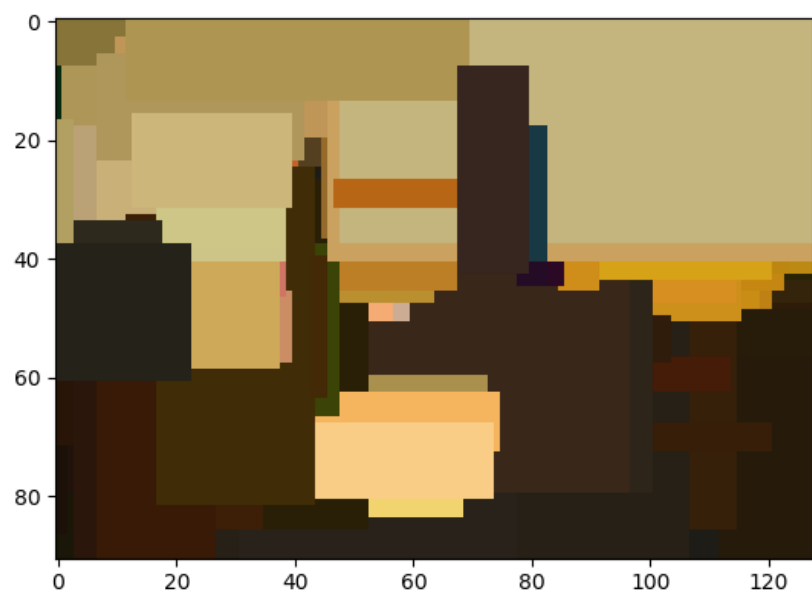
Folosind dreptunghiuri pentru Mona Lisa:

NR_SHAPES = 300 | MIN_AREA = 30 | MAX_AREA = 50 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.3
MUTATED_SHAPES = 0.3 | MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] | crossover = random

1_SHAPES = 300 MIN_AREA = 30 MAX_AREA = 50 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] crossover = random Mo



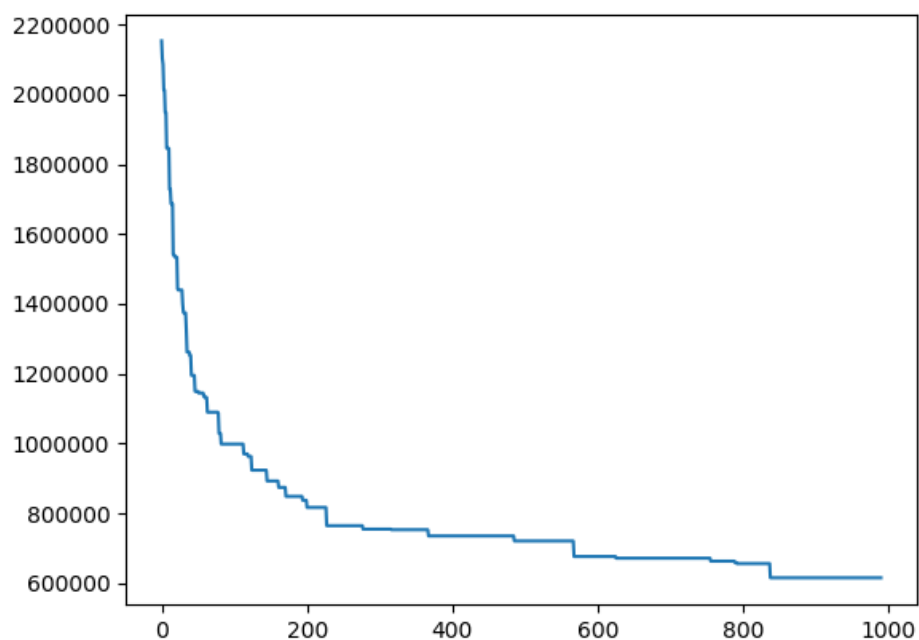
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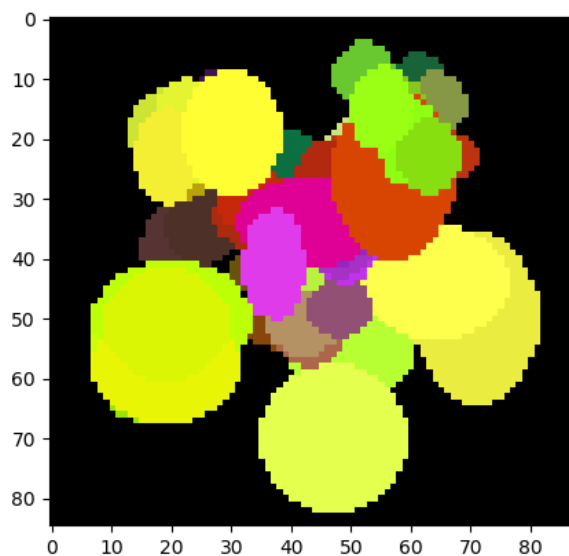
Folosind dreptunghiuri pentru Mona Lisa:

NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.31
MUTATED_SHAPES = 0.3 | MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] | crossover = random

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.31 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] crossover = random

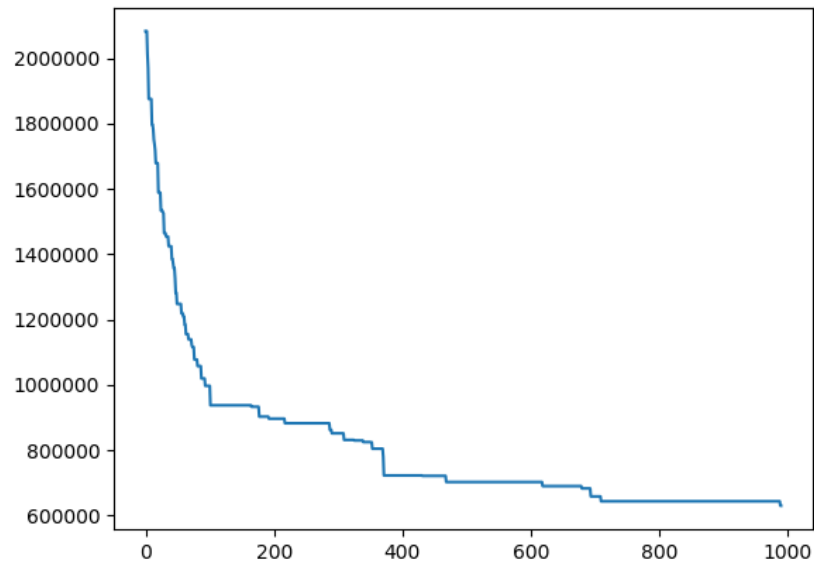


NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.31 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0, 0.01, 0.05, 0.1, 0.2] crossover = random

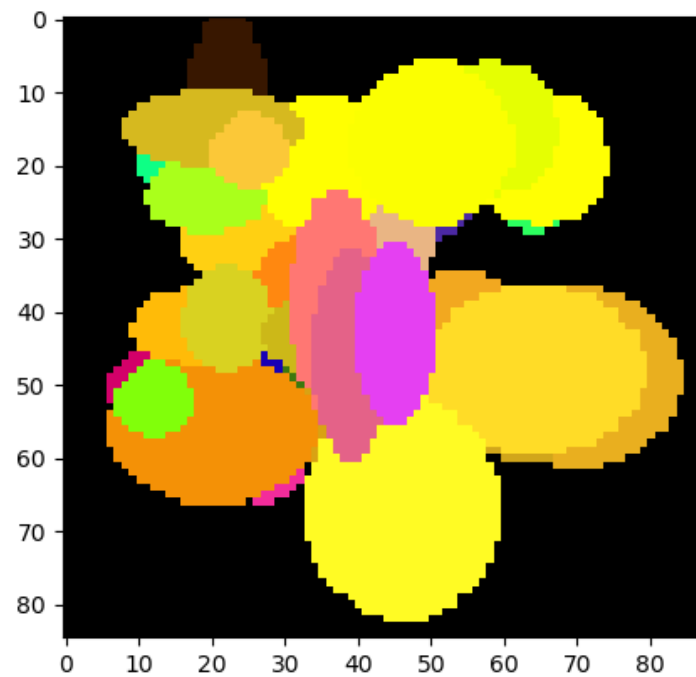


NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.3
MUTATED_SHAPES = 0.3 | MUTATION_PROB = [0.05, 0.1, 0.2]

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.3 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0.05, 0.1, 0.2]



NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.3 MUTATED_SHAPES = 0.3 MUTATED_SHAPES = 0.3 MUTATION_PROB = [0.05, 0.1, 0.2]



NR_SHAPES = 50 | MIN_AREA = 5 | MAX_AREA = 15 | NR_GUYS = 100 | NR_GUYS_SAVED = 0.05
MUTATED_SHAPES = 0.1 | MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] | crossover = random

NR_SHAPES = 50 MIN_AREA = 5 MAX_AREA = 15 NR_GUYS = 100 NR_GUYS_SAVED = 0.05 MUTATED_SHAPES = 0.1 MUTATION_PROB = [0.01, 0.05, 0.1, 0.2] crossover = random

