

Firstly, the evaluate function returns a tuple with a single element, which is the fitness value. This is correct, but you should ensure that the fitness function is correctly implemented and that the penalty for exceeding resource capacity is correctly calculated.

Secondly, the mutate function uses a Gaussian mutation with a mean of 0 and a standard deviation of 20. This might be too high, and you should consider adjusting the standard deviation to avoid large mutations that could disrupt the optimization process.

Lastly, the eaSimple function is used to run the genetic algorithm, but you should consider adding some termination criteria, such as a maximum number of generations or a convergence threshold, to stop the algorithm when it reaches a satisfactory solution.