

# $\lambda$ *Lounge*

## **Evolutionary Algorithms**

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## **Why Use and Evolutionary Algorithm?**

## **The Evolutionary Algorithm**

1. Population Initialization: generate a new population.
2. Fitness Evaluation: rate each member of the population.
3. Repeatedly:
  - (a) Parent Selection: choose who to breed.
  - (b) Recombination: cross the parents.
  - (c) Mutation: applied to the offspring.
  - (d) Fitness Evaluation: usually just the new offspring.
  - (e) Survivor Selection: kill off the weak.

# **Population Initialization**

## **Fitness Evaluation**

## **Parent Selection**

# **Recombination**

# **Mutation**



## **Survivor Selection**

***Questions?***