



**MOBILE PATHWAYS PARTNERS**

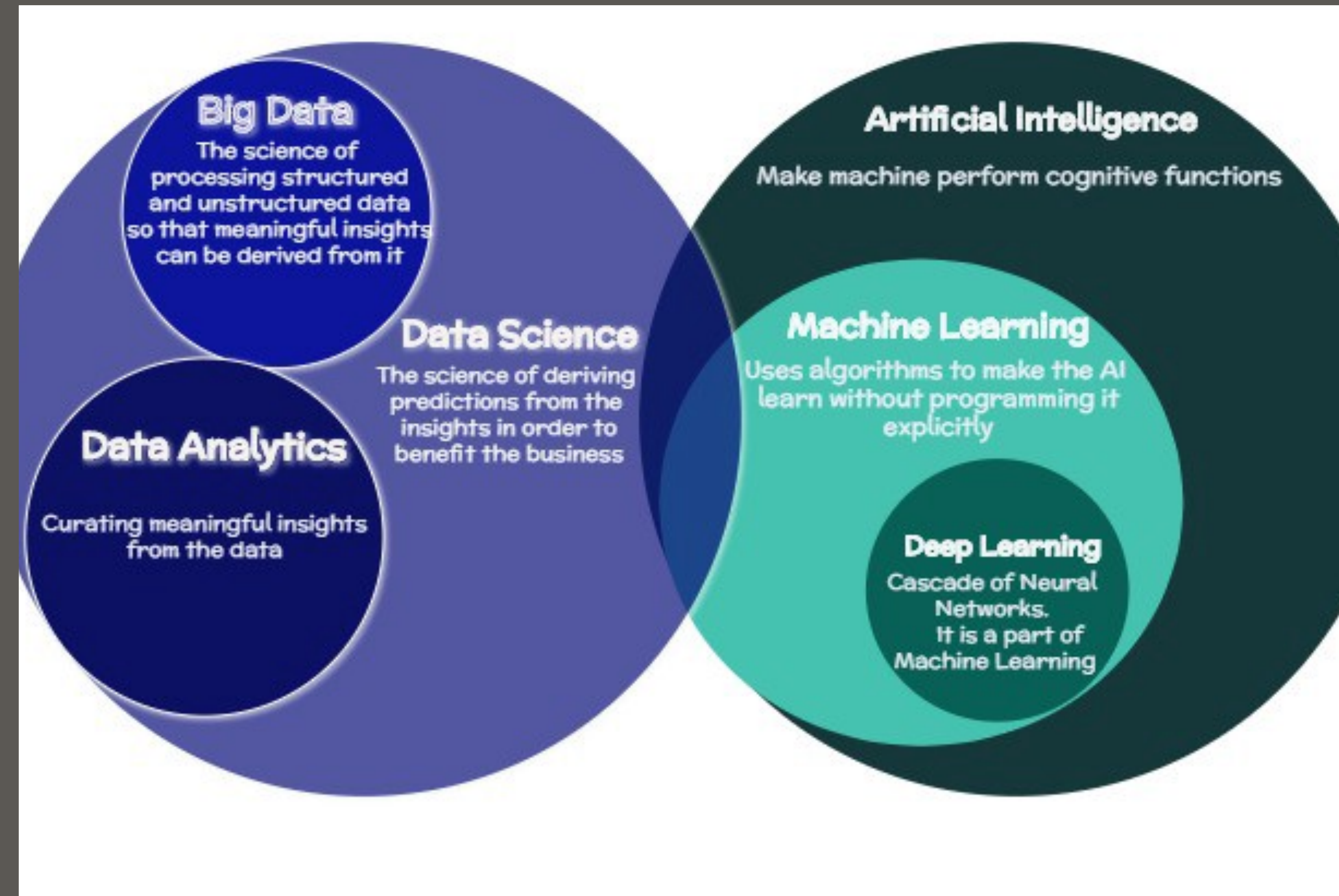
## OVERVIEW

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# AI-MACHINE LEARNING

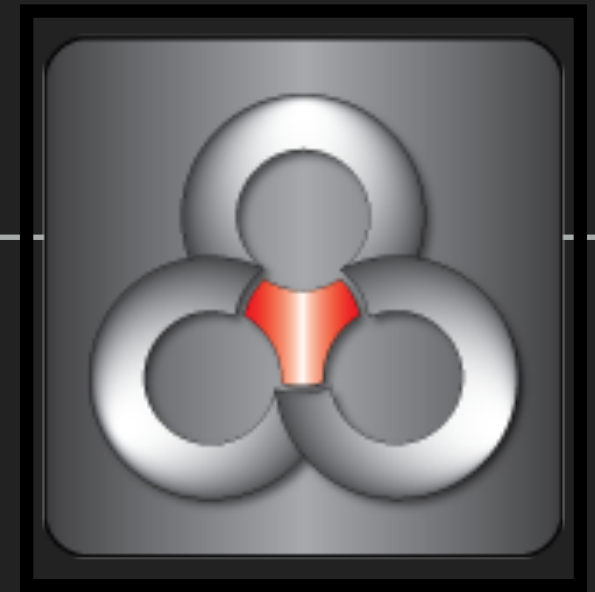


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# THE BIG PICTURE



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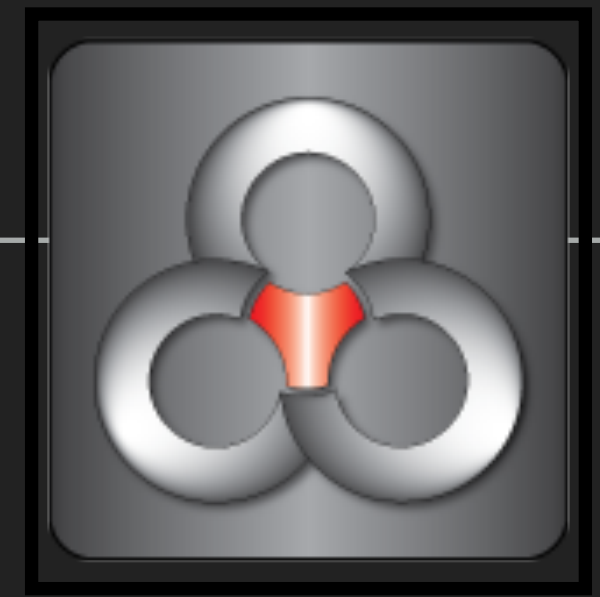
# MACHINE LEARNING WHAT IS IT?

- ▶ Giving the computer the data and tools it needs to study a problem and solve it without being told what to do. Also, giving the computer the ability to remember what it did so it can adapt, evolve, and learn.



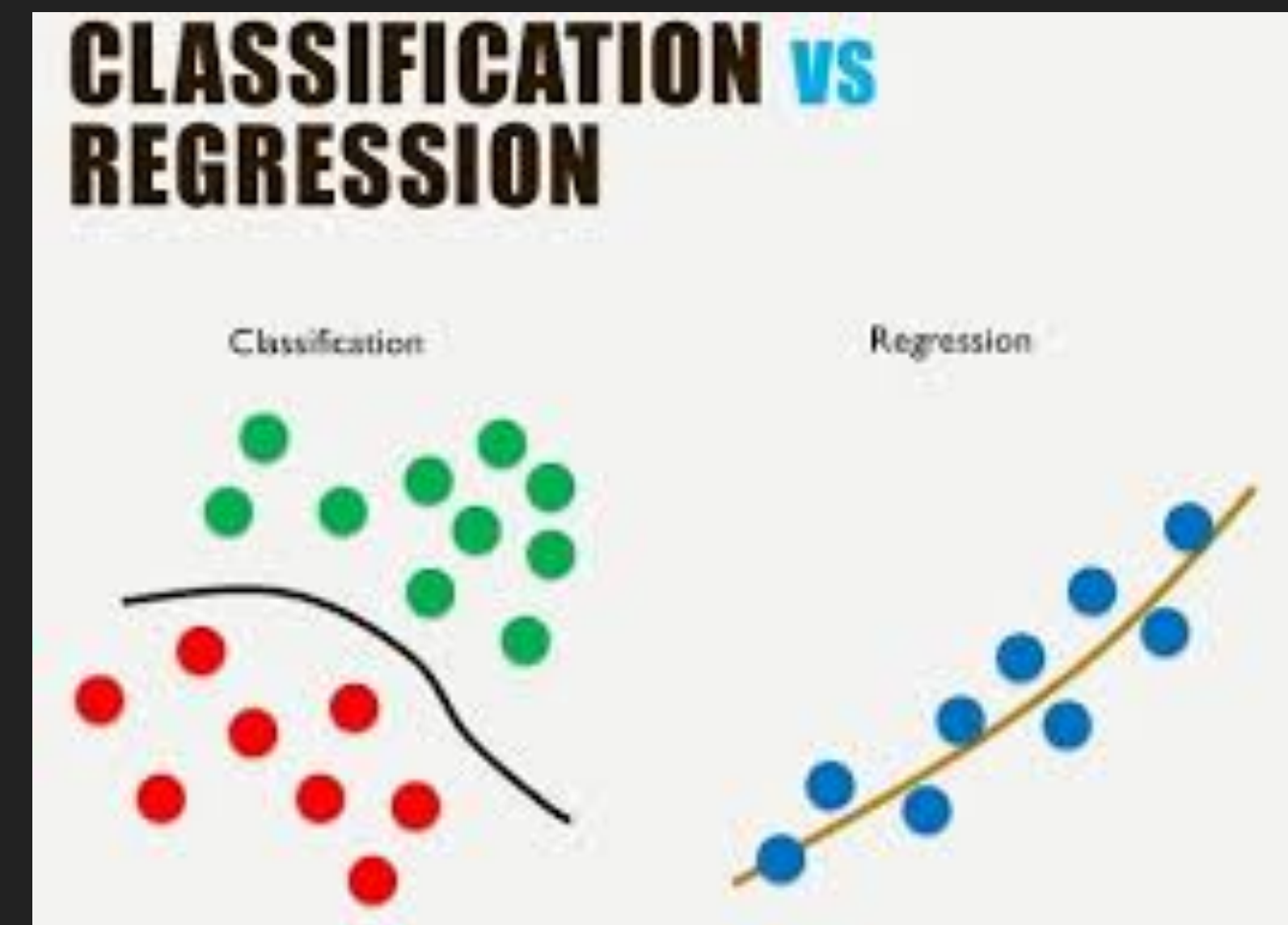


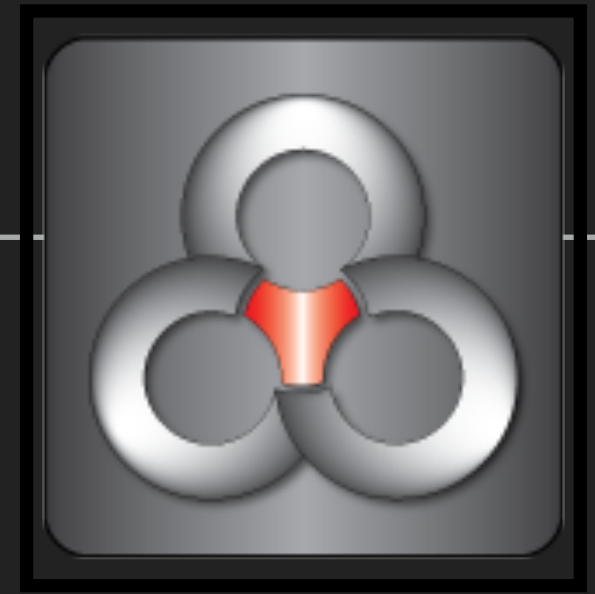
# TYPES



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- ▶ **Training Data** - Smaller portion of data that you'll use to find patterns.
- ▶ **Supervised** - When a data scientist acts like a tutor for the machine, training it by showing it basic rules and giving it an overall strategy.
- ▶ **Unsupervised** - The machine makes all the observations on its own. It might now know all the different names and labels, but it will find patterns on its own.
- ▶ **Semi-supervised** - Partially train the machine to it gets a high-level overview, then most of the learning about the rules and strategies is through observing different patterns.
- ▶ **Reinforcement** - Machines iterate to continuously improve the outcome.

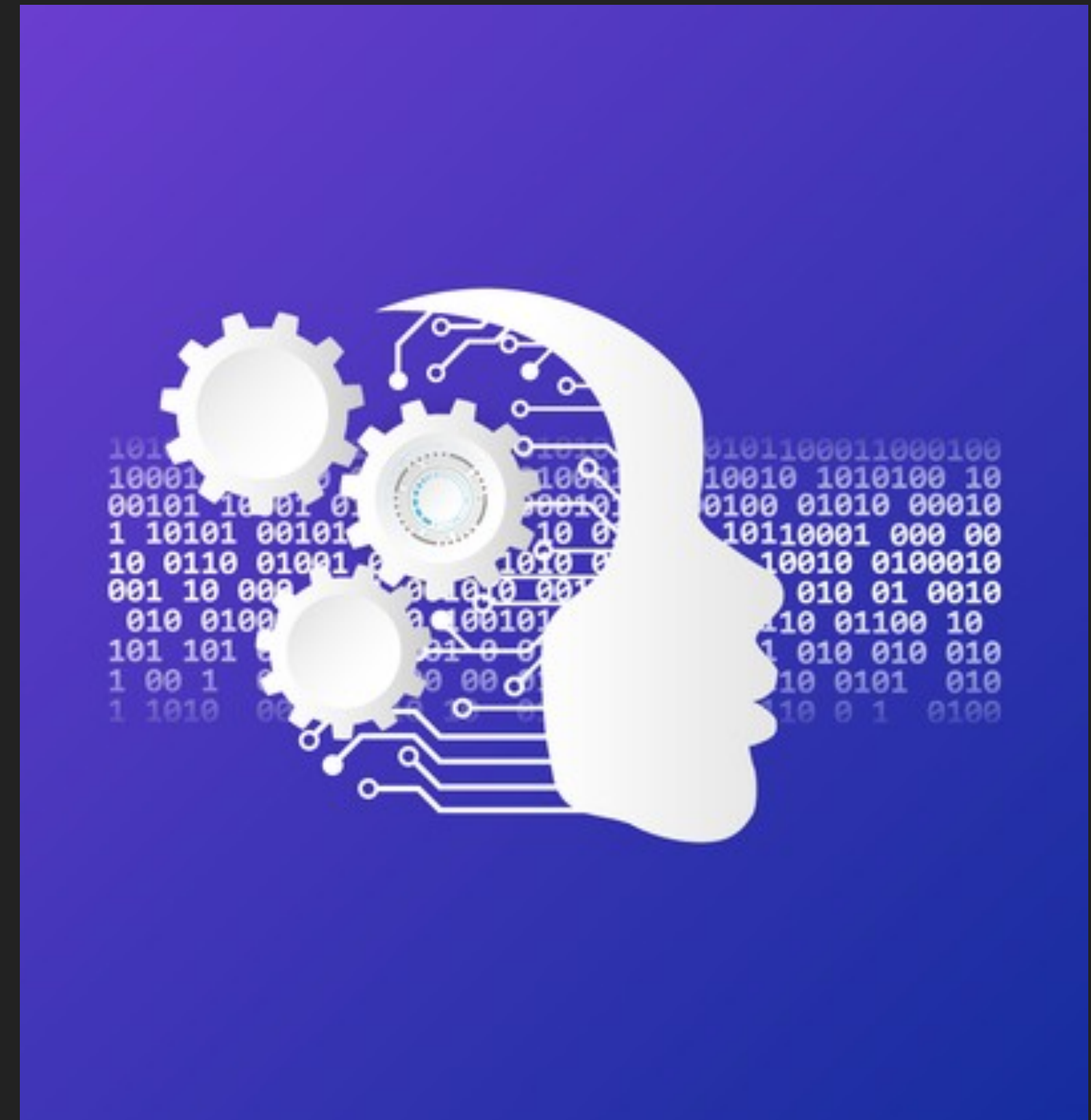




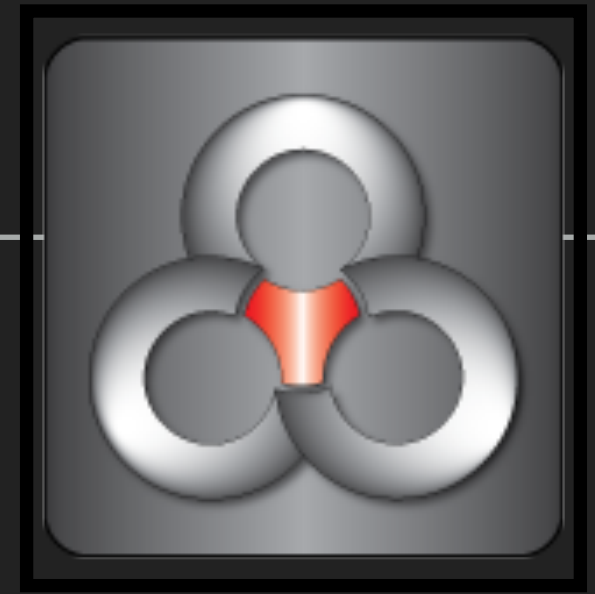
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# POPULAR ALGOS

- ▶ Decision Trees - Predictors Outcomes
- ▶ K-nearest neighbor - Supervised, data grouped together based on similar characteristics
- ▶ K-mean clustering - Unsupervised, data grouped together based on what machine sees in the data.
- ▶ Regression - analyses relationships between predictors and outcomes
- ▶ Naive Bayes - conditional probability, predictors are independent of each other,

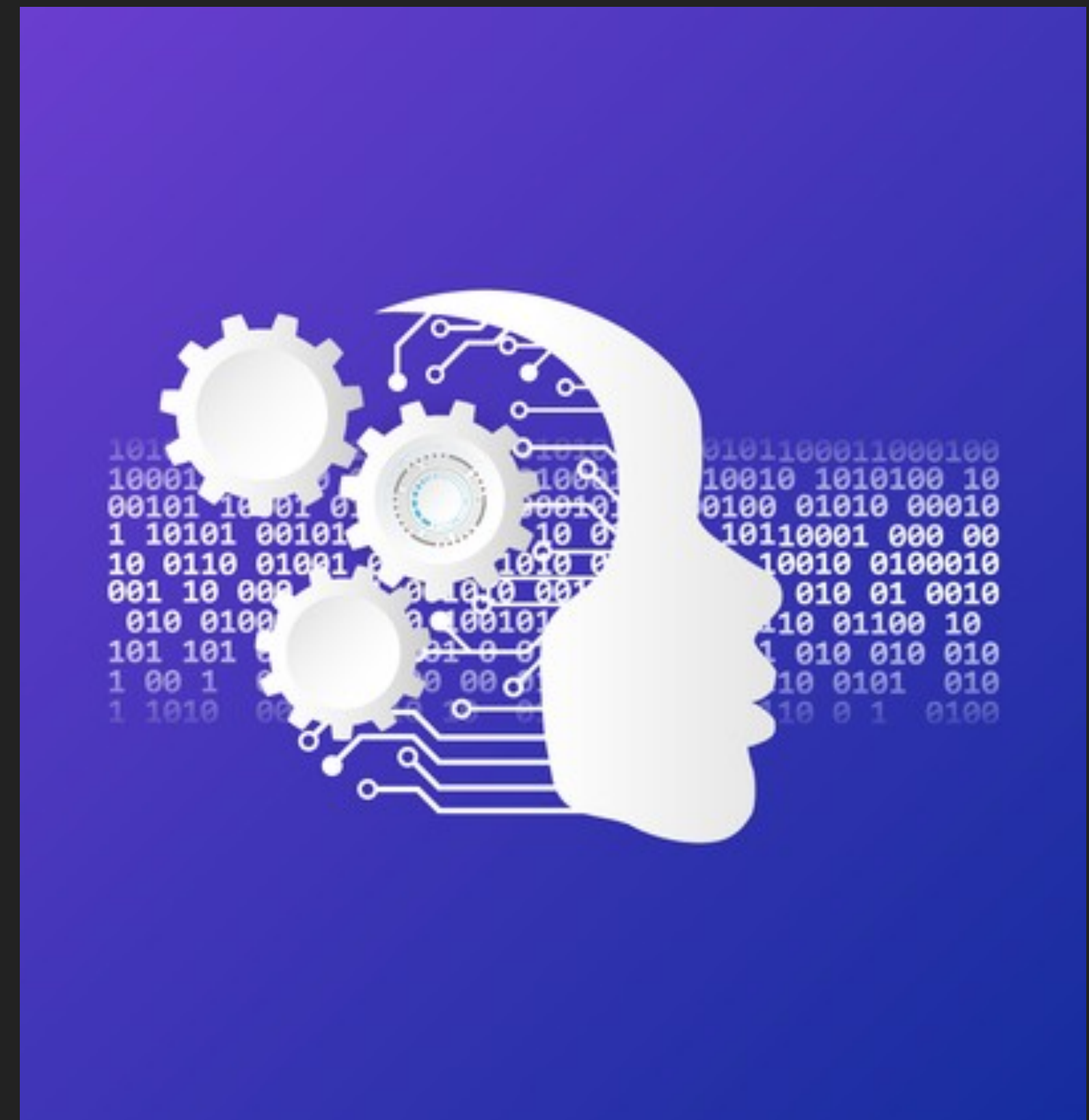


# NAME THAT ALGO



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- ▶ Amazon -
  - ▶ Regression
- ▶ Tesla -
  - ▶ Neural Networks/Decision Trees
- ▶ Rumba -
  - ▶ Nieve Bayes
- ▶ Spotify -
  - ▶ K-mean clustering
- ▶ Radiology -
  - ▶ K-Nearest Neighbor







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**ANY QUESTIONS?**