

# Machine Learning 404



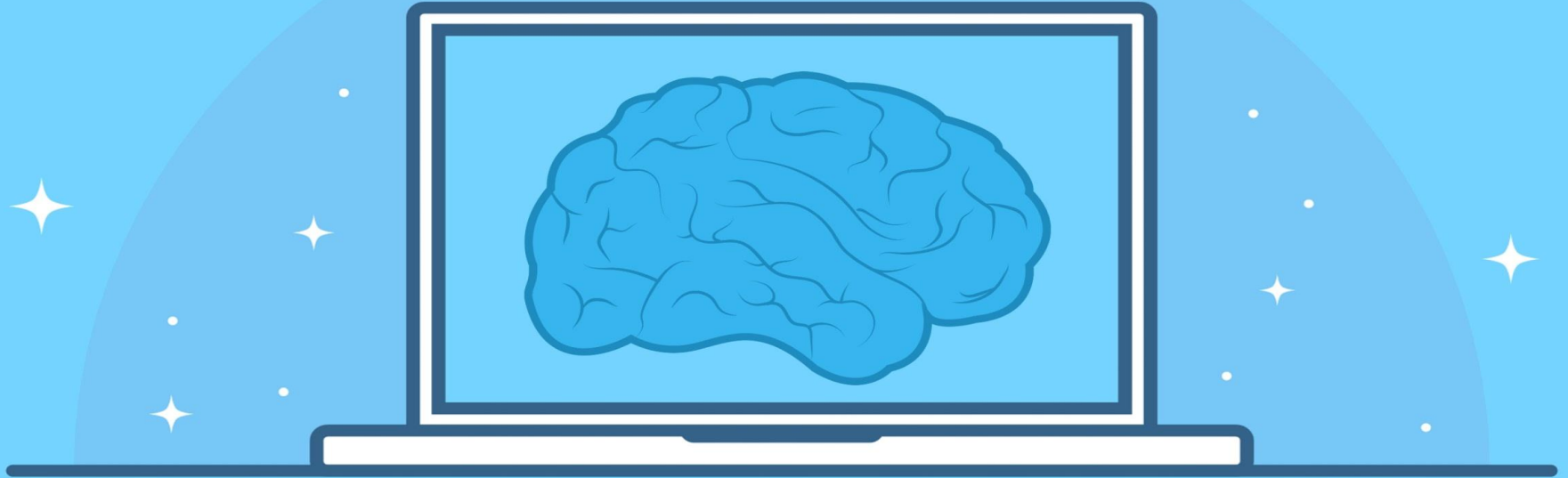
Boadzie Daniel -- AI Engineer/Data Scientist

# What we will do

1. What is Machine Learning?
2. Why ML?
3. What are the advantages and Opportunities?
4. What are some of the challenges?
5. How do we overcome them?

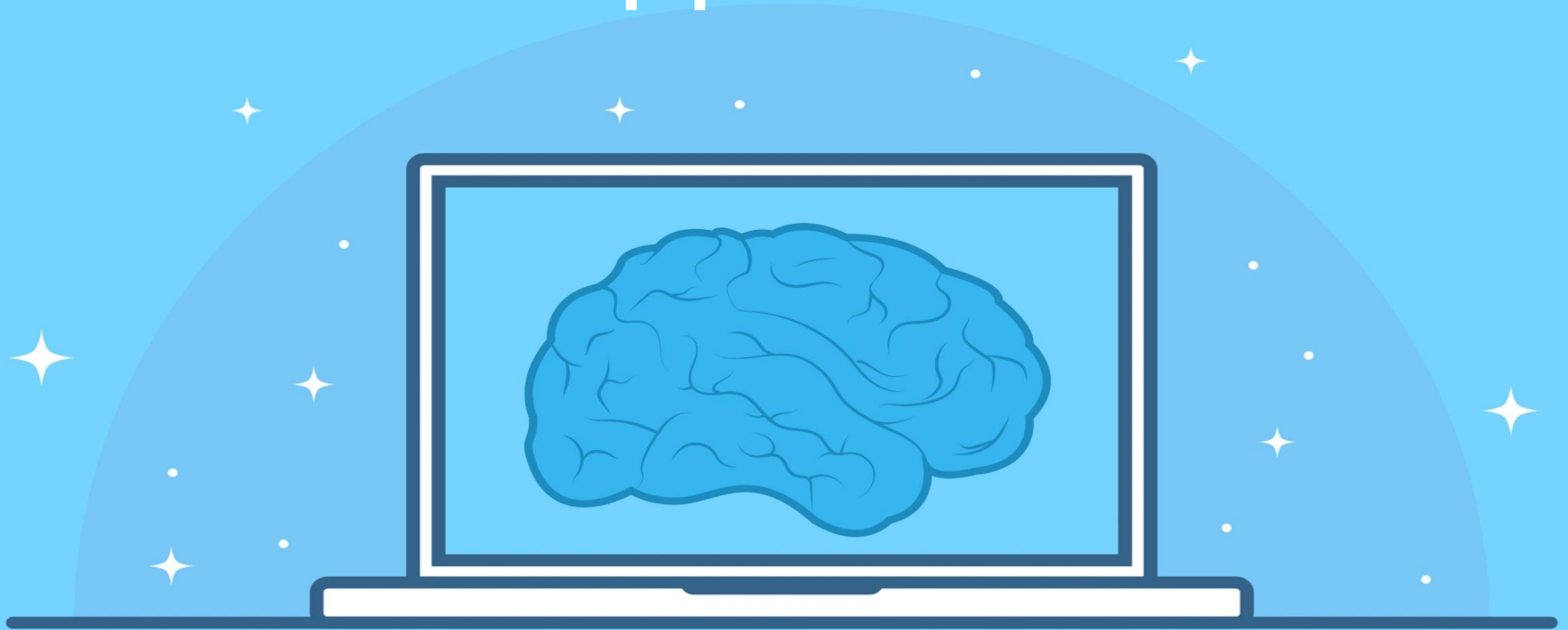
1. What are some Popular Algorithms
2. How do you improve your models?
3. Deep Learning

# What & Why Machine Learning?



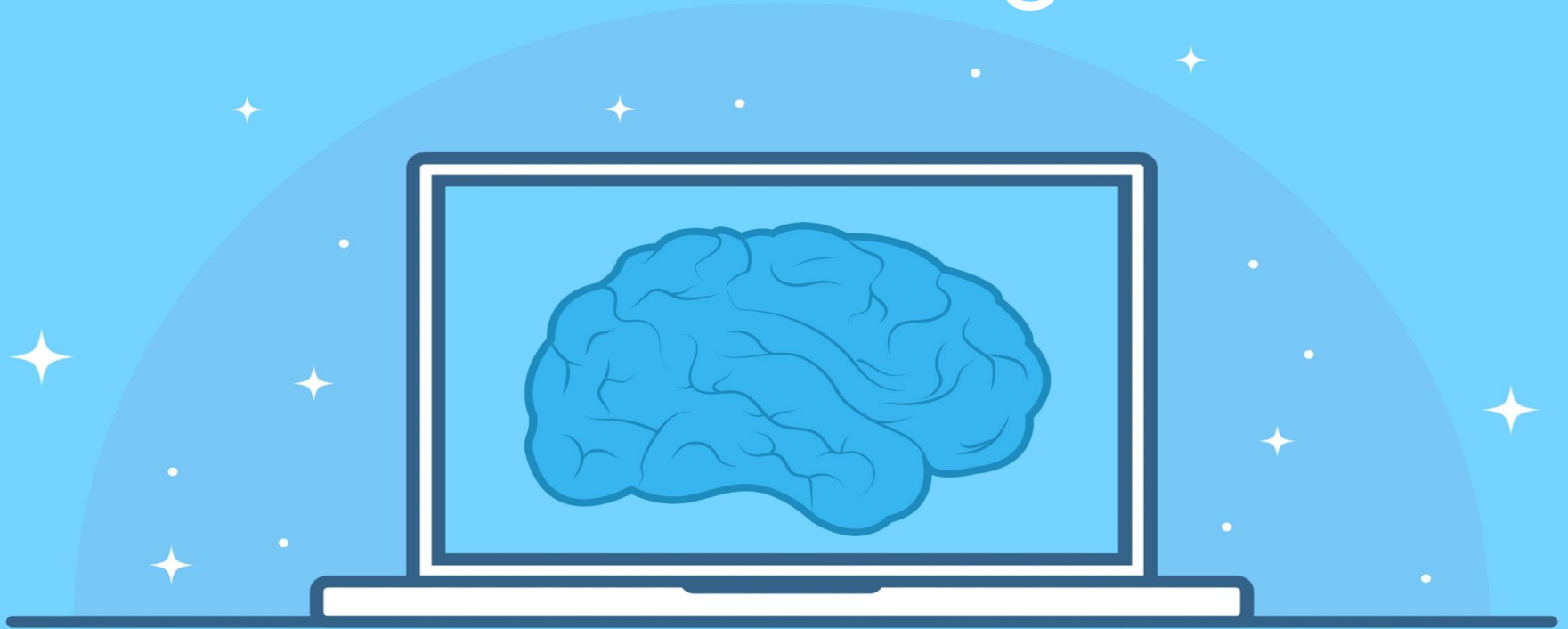
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# The Opportunities



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# The Challenges

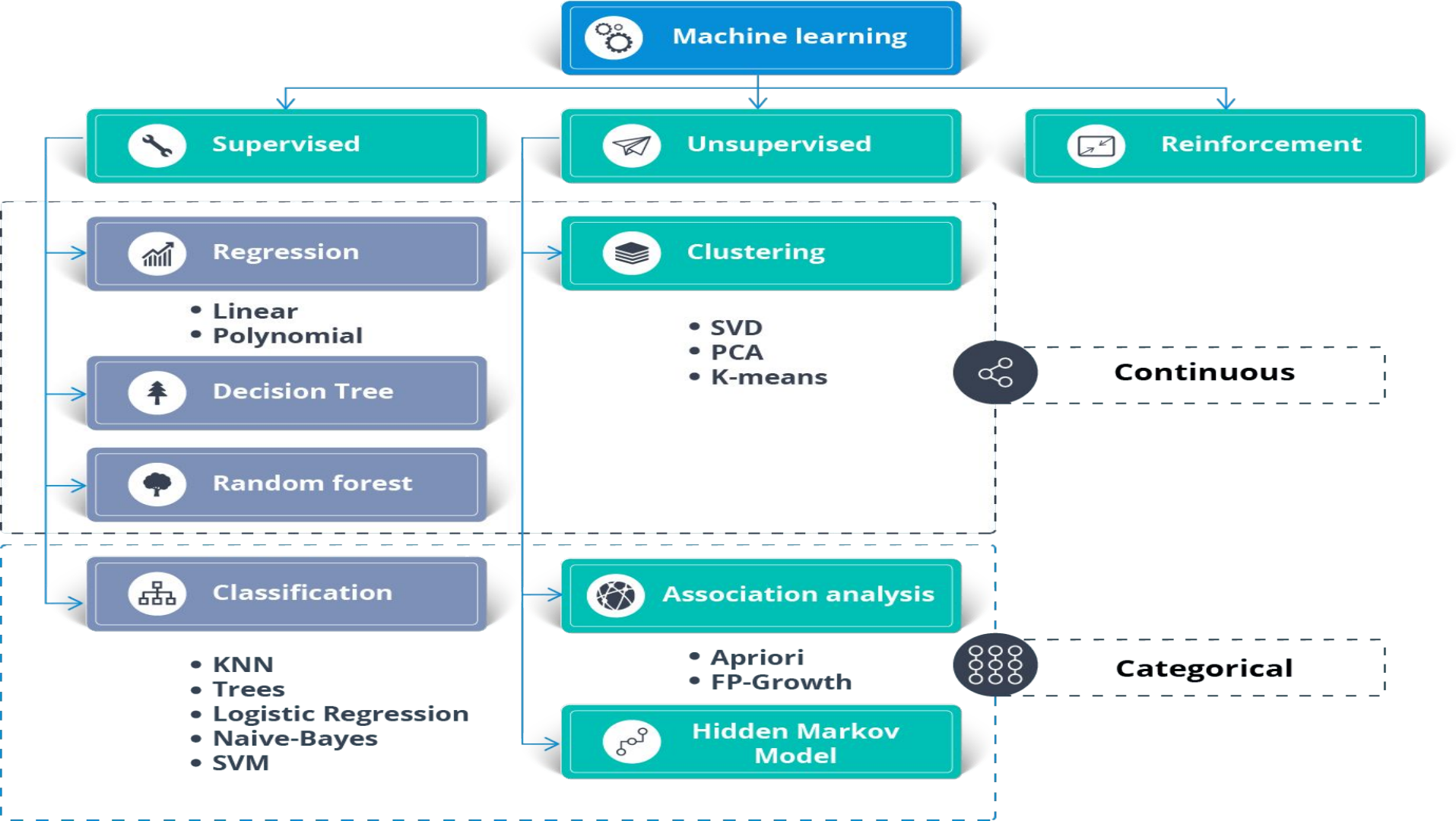


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# The Solutions



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# Linear Regression

Show relationship between  
an independent variable  
and a dependent variable



# Logistic Regression

Show the probability of an input belonging to a specific class

# Support Vector Machine

Find a line that best  
separate two or more  
classes

# K-Nearest Neighbor

k= n represent n closest points in the data. The majority class wins

# Naive Bayes

It uses the Bayes' Theorem, which assumes that features are statistically independent. The theory assumption that input variables are independent of each other, i.e. there is no way to know anything about other variables when given an additional variable.

# Decision Tree

Identifies ways to split a data set based on different conditions.

# Random Forest

They are made of many decision trees. Each decision tree created by using a subset of the attributes used to classify a given population

# Clustering

Find inherent groupings  
within data

# Deep Learning

Deep learning is an artificial intelligence function that mimics the workings of the human brain in processing data and creating patterns for use in decision making.



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