Lightning talk

Machine learning

1. Machine learning, Artificial Intelligence, Deep Learning
2. Liking songs on Spotify
   1. Tempo, Genre, Intensity, Gender of voice
3. Machine Learning

Computer learning from the data provided to them

“using data to answer questions”

Training - Prediction

train to make a predictive model on something

* 1. Supervised Learning (Feeding input-output data)
     1. Weight = Feature
     2. Currency = Label
        1. LABELED DATA to train the model
  2. Unsupervised Learning (Feeding input data only -> will form groups/clusters from the data provided -> new input will be put in one of these)
     1. Data is unlabeled
        1. Make assumptions, groups based on the input, then train the model with additional cases
  3. Reinforcement Learning
     1. Works on the principle of feedback
        1. Is it a dog?
           1. no it’s a cat

learns from the feedback and if the next time it comes across the case, it will make better assumptions, or classify the data correctly

1. How is machine learning possible in today’s era?
   1. Massive amounts of data to use
      1. Everyone’s online, surfing the internet, making transactions, communicating
2. Applications of Machine Learning
   1. Health Care – diagnostics are predicted for doctor’s review
   2. Sentiment Analysis – tech giants on social media
   3. Fraud detection
   4. E-Commerce – customers
3. In everyday life machine learning:
   1. facebook tagged pictures
   2. google search – java coding or coffee?
   3. spotify, Netflix suggestions based on liking

Real Life example:

1. Uber
   1. Machine Learning model
   2. SURGE PRICING (sources)

Helps quickly connect each person who needs a ride with a driver to help them get to their destinations

Without this feature, when the demand for rides exceeds the number of drivers available, customers have to wait longer

Surge pricing to restore balance

* + - Differential pricing in real time based on
      1. Demand
      2. Number of cars available
      3. Bad Weather
      4. Rush hour
      5. etc.
    - Sudden giant wave
    - In customers
    - Surge pricing model for people who are in need of the service to get the service
      1. The price will go up – the app will ask if the customer wants to pay more but get the service, or prefer to wait instead
    - Predictive model to predict like where the demand will be high with the goal that drivers can take care of the demand and surge pricing can be minimized

If an area is surged, it will be displayed on the map in the app

If a surge is happening -> it makes more drivers to go to the area

for riders it’s a premium