What makes a good Features?

→ Classifier are only good as only the features you provide that means coming up with good features is one of the most important job in ML.

→ If we are doing binary classification then good feature makes it easy to decide b/w two different things.

→ for example, imagine we wanted to write a classifier to tell the difference b/w two types of dogs — greyhounds and labradors

then Here we will use two features the dog Height in inches and their eye color

ideal feature
├ simpl
├ Indepndr
└ simple

① greyhounds are usually taller then labradors.
    (Height)

② eye color → blue & brown for both 50/50.

→ Including useless feature in training data can -vely impact a classifier accuracy, specially if data set is small, as they might appear useful by chance.

→ good feature must be independent feature
   for ex = Height ⟨ inches / cm ⟩ they are perfectly correlate features.
   So independent feature making it good practice to remove them.

→ understandability of feature → It should be easy for human to understand and relate to the

eg $\rightarrow$ dist. b/w cities in miles or latitude and longitude.

Identifying effective features by demonstrating their characteristic : they should help diff. b/w classes, be independent of each other, and be intuitively understandable. It also heightight that while fetch