

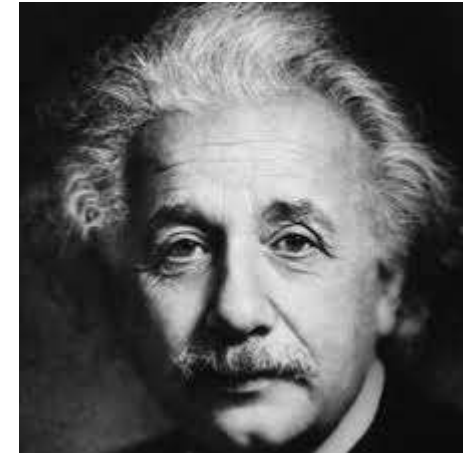
Quiz



With Voice breaks

Time Piece

When I was walking up the road for usual home errands, I saw something very strange. Usually we only expect to see things that are routine. We do not expect any surprises. I saw a street peddler sitting with a basket of guava fruits. The fruits were fresh, some are green and some are light yellow showing that they are ripe. He has a variety of kind of sizes and quality of guava fruits that could fit into a usual sized basket. There was nothing strange at all but for a cable, that has fell out of a jute bag he had. I could immediately make out it was a laptop's power cord...



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Vector Interpolation can fill the gaps

- Part of an image to full image *from knowledgebase*
- Part of an audio clip *from knowledgebase*
- Usual words that appear in sentences *from knowledgebase*
- Pronunciation correction in speech signal *from knowledgebase*
- Filling a missing value in a table of values *from knowledgebase*

...Generating a new vector from combination of previous vectors

Deduction is... **Not a gap filling problem**

- Parity Learning
 - Given a binary string of 0's and 1's to decide if sum of 1's is odd
- Divisability Learning
 - Given a binary string of 0's and 1's for a dividend and divisor, to determine if its divisible
- Histogram Learning
 - Given an array of numbers, to learn to count number of elements falling in value ranges and emit histogram
- Min Max Learning
 - Given an array of numbers, to learn to emit maximum element in it (or minimum)
- Sorting Learning
 - Given an array of numbers, to emit a sorted equivalent of the array

Discussion – Deduction vs Induction

- Parity learning?

- (input = binary string)
- Sum of number of bits is odd \rightarrow 1

- Divisibility learning?

- (input = binary string)
- Divisible by 2
- Divisible by 3?
- Divisible by general K?

- Histogram learning?

- (input = an array of numbers)
- Output is value range bins and number of elements in each bin

- Given an image of a face, you have to fill gaps, say fill eyes!

- Given an audio clip, you have to guess a missing part

- Given a vector you have to predict 'label'

- Learning from a set of pairs of vectors, you have to predict one given the other!

