Special Session

→ kaggl.

<u>Dataset</u> : Flickr 8k data set.

\# <u>Adding Constraints</u>
- Caption length < specified length
- Mapping caption with image.

> RoboFlow:
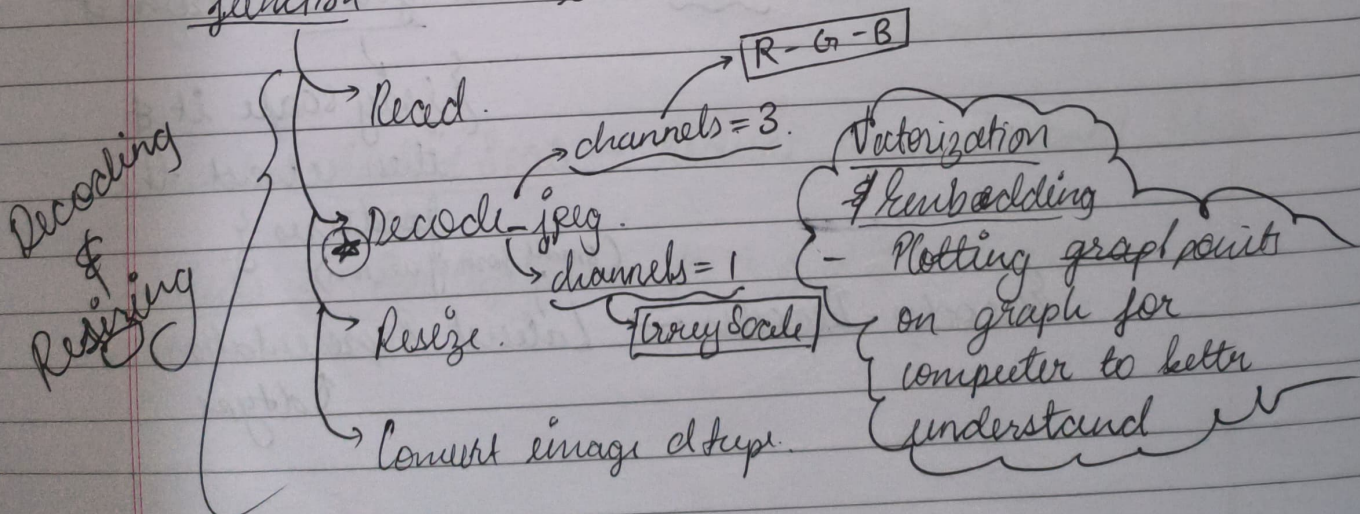> Best CV platform

\# <u>Vectorization :</u>
Vectorizing the text data
- Make lower case
- Remove unwanted chars.

<u>Dataset</u>
<u>Pipe line</u> → ~~Conti~~ Accessing data from a
<u>function</u>   external source

Decoding & Resizing

→ Read. → R – G – B

→ Decode_jpeg.   channels = 3.

→ Resize.   channels = 1   [GreyScale]

→ Convert image dtype.

Vectorization
& embedding
- Plotting graph points
on graph for
computer to better
understand

- Shuffle ——→ · Shuffling the input sequence.
- Decode.

———————————————— OVA - RIZZ TIME ————————

<u>Alpha 3 Fold</u> : · Generate protein by the model is accurate or not.
- Predicted 8000 protein synthesis

<u>Vir & Vrushti</u> Text Vectorization
<u>Task</u>. · Other types of Vectorization.

<u>Building Models.</u>   {CONVOLUTIONAL NEURAL NETWORK}

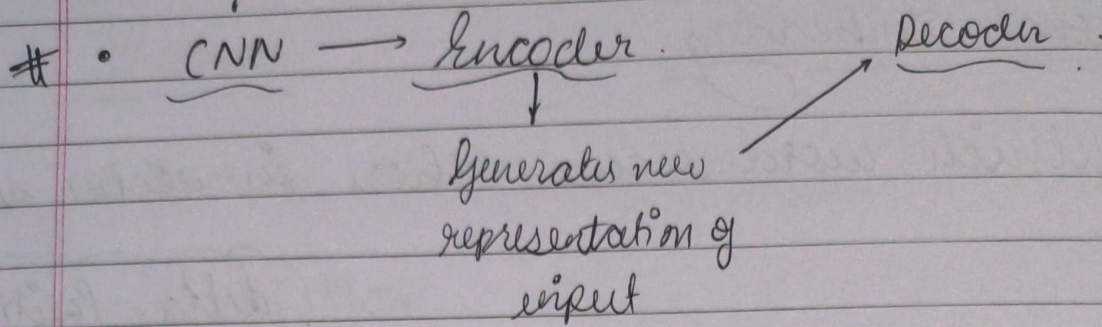- Models used : <u>CNN</u> - Exact <u>features</u> from it.

{Gray scale it & then extract the features}
(small form of vectors).

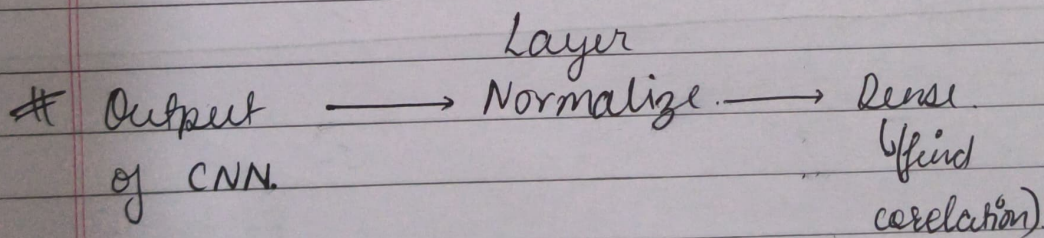- <u>Encoder - Decoder</u> → Latent Representation
{d type.

* **Efficient Net** → {optimum results for CNN layer}

• CNN ⟶ Encoder ⟶ Decoder

↓

Generates new representation of input

Termanologies

- **Dense** → Find Relation between the any two elements.

- ~~Act t~~ **Activation func** ⟶ grading system for Dense layer

- **Attention** → Actually helps machine to understand the important elements in a sequence

- **Normalization** → Reduce dimentionality of any sequence to a wanted range eg. $(255,)$ ~~255~~ $\xrightarrow{between}$ $(0, 1)$

                                     Layer
Output ⟶ Normalize ⟶ Dense.
of CNN.   (find
                                     corelation)

Embed • **Embed Scale** → Reduce computational time.

- **Bias** : ~~Pra~~ Preference for a specific condition

Positional Embedding

- Which word occurs where in vector space

> delta = Position should remain in which range.

—————— RIZZ — SHABH ——————

— How to determine optimum Learning Rate —

- Learning Rate:
  - Rate at which the globle loss minima is reached.

ADAM: What should machine do to reduce the loss.

How to choose a L.R.
- Sum squared Error of every learning Rate.

Decoder

Positional ———→ Decoder
Embedding   Block

Page No.

Date

WORKING

- Adding Attention in decoder Block.

- Casual Mask
  – Relation between two element

- Normalization

- Feed Forward Neural Network ⅛

  ⇓

o Call this

Augmentation : Make changes in image. ₄
Basically, the make changes so
that the model doint learn
that image too well.

Task :

———————— OUA-RIZZ - ROUND-2 ————————

Replace GPU with Optical fiber.