COPPE

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1 Definition

A postprocessing layer is a function that:

- is one of the following:

  - a normalization function (e.g. batchnorm)
  - an activation function (e.g. relu)
  - dropout function

- does not change the "type" (shape, data type, etc) of the input tensor

Definition 1 (valid nework). *A generated network N is valid if and only if the following hold:*

- *The ranks of sequentially connected tensors in the network are not increasing ($\rightarrow$ conv2d (rank 3) cannot be followed by a dense layer (rank 1)).*

- *Let M be an arbitrary subgraph of N. $\forall M \subseteq N$ with only postprocessing layers, there only exists one layer per type.*

- *Any connected vertices have matching dimensions ($\rightarrow$ this can be fixed by adding upsampling/downsampling/reshape/concatenate layers).*