Question Answers:

**Question:**

What is a response layer? (Give a brief, 1-sentence description)

**Answer:**

The filters in a convolutional neural network that helps develop a more accurate output.

**Question:**

Given the filter shape of (26, 26, 32), what does each number represent?

**Answer:**

32 means there are 32 different filters and each filter is 26x26 in size.

**Question:**

Given 6x6 input and filter of (3,3): what is the response shape that we get?

**Answer:**

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A 6x6 input size is the size of the picture being taken in. A (3,3) filter is a 3x3 filter block that analyzes the portion of the photo it I am surrounding.

This filter moves row by row until it has covered the entire block without going beyond the input size.

Example:

A picture containing shoji, building, crossword puzzle

Description automatically generated And it would continue the same way as it moves downward.

**Question:**

What is the difference between ‘valid’ and ‘same’ padding? Given 6x6 input and filter of (3,3), what are the response shapes for both options?

**Answer:**

Valid padding means no padding, and same padding means using padding. For same padding, the output size will be the same as the input size. For valid padding, the output size will depend on depend on the input size and the kernel size. In the example, the output response was 26, when this method was used.