1. A filter is a way for the neural network to remove certain aspects of an image. This allows the neural network to guess what the image is. The neural network removes the noise and looks at the most important aspects of an image to guess what the image is.
2. A feature is a part of an image that a neural network sees. The network sees these features and uses them to determine what the image is composed of. The network then guesses what the image is made up of based on these features which it compresses based on the most of certain values until it comes up with a guess.
3. A feature map is a function that transposes features into a plane. The features in this case are parts of an image that the neural network looks for. The plane has all the features organized in a way which allows the neural network to better classify features.
4. Pooling is when the network decreases the size of an input image. The network will scan the image and pick out areas of a particular descriptor and put them into a seperate image. This seperate image will then be used by the network to make assumptions about the original image.