**Convolution Neural Network:**

**Learning without forgetting**

Convolutional neural networks are distinguished from other neural networks by their superior performance with image, speech, or audio signal inputs. They have three main types of layers, which are:

* Convolutional layer
* Pooling layer
* Fully connected (FC) layer

Learning without forgetting has been proposed which is reported to be able to work well on the new tasks while preserving the same performance on the old tasks.

The Purpose of Learning with Forgetting (LWF) is to learn a network that can perform well on both old task and new tasks when only new task data is present.

A CNN has to be trained well before deployed to real world applications, yet unfortunately, sufficient training data is not always available. In this case transfer learning is invented to take advantage of the knowledge of a pre-trained model which is trained on a sufficient database. However, transfer learning commonly does not consider the performance of the model on the previous tasks, CNNs may forget what they had learned before when the knowledge now is transferred to another task.

To tackle this problem Learning without forgetting has been proposed which is reported to be able to work well on the new tasks while preserving the same performance on the old tasks.

I am interested in working with task Learning without forgetting. I researched about this concept and briefly described about it. Please let me know if this approach works fine or do let me know how we can proceed further.

Yours sincerely

Chinmaya Nithin.