***ResNet implementation for Image classification and labeling.***

ResNet, an alias for Residual Network, is a form of neural network introduced in 2015 by Kaiming He, Xiangyu Zhang, Shaoqing Ren, and Jian Sun in their paper "Deep Residual Learning for Image Recognition."

ResNet was a cutting-edge method compared to VGG-like models:

We achieve over 70% accuracy in 100 epochs without using any pre-trained models, demonstrating the potential of ResNet.

To acquire results in a reasonable period of time, I'll be using a less sophisticated version of ResNets in this notebook. Although the CIFAR-100 dataset is utilized for the implementation, it may be used for any image classification dataset.

References which I got implementations and explanations.

* [weiaicunzai/pytorch-cifar100](https://github.com/weiaicunzai/pytorch-cifar100/blob/master/models/resnet.py)
* [papers-with-code](https://paperswithcode.com/sota/image-classification-on-cifar-100)
* [pytorch-basic-cifar10](https://pytorch.org/tutorials/beginner/blitz/cifar10_tutorial.html)
* [more-implementation-with-explanations](https://blog.jovian.ai/image-classification-of-cifar100-dataset-using-pytorch-8b7145242df1)
* [more-reading](https://www.researchgate.net/publication/355698607_MEST_Accurate_and_Fast_Memory-Economic_Sparse_Training_Framework_on_the_Edge)
* [visualization](https://jovian.ai/damian-c036/cifar100-final-project/v/5?utm_source=embed)