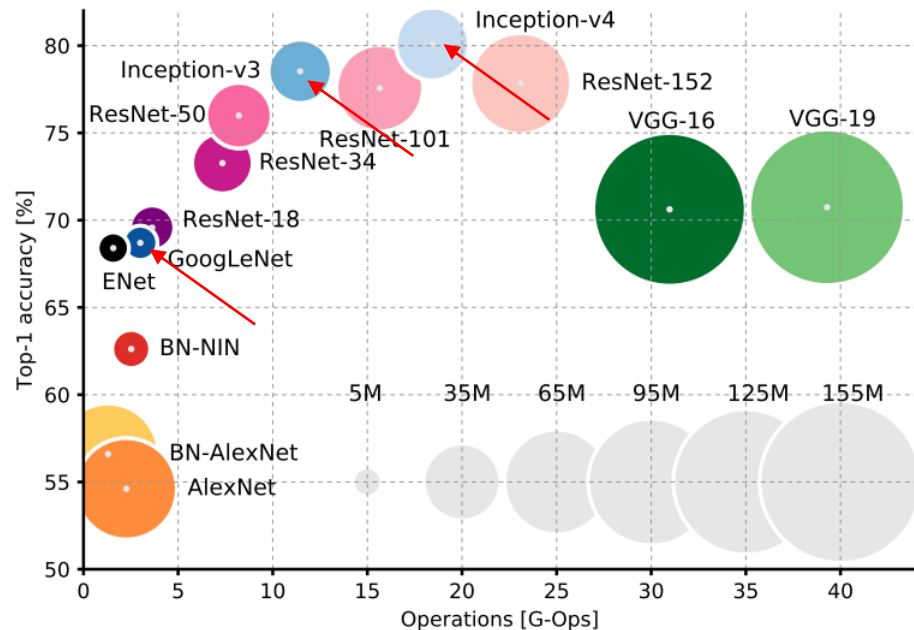
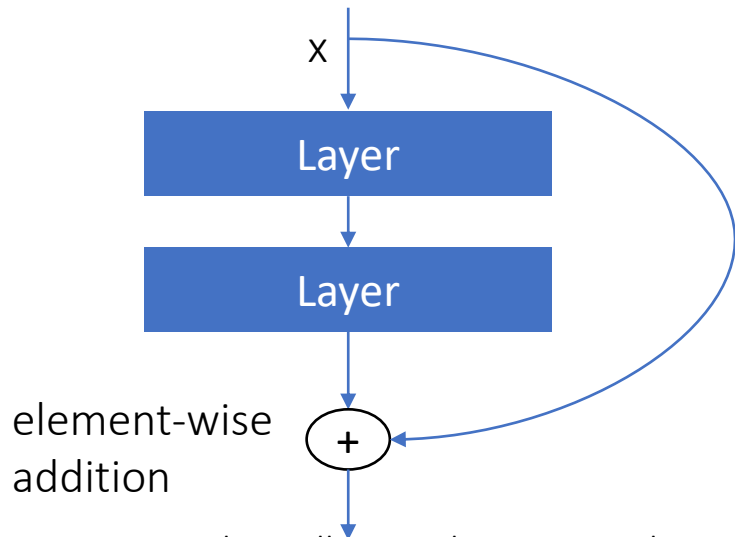


Inception

Inception

Recap

- Resnets improved the performance while having less parameters
- How? Skip connections!

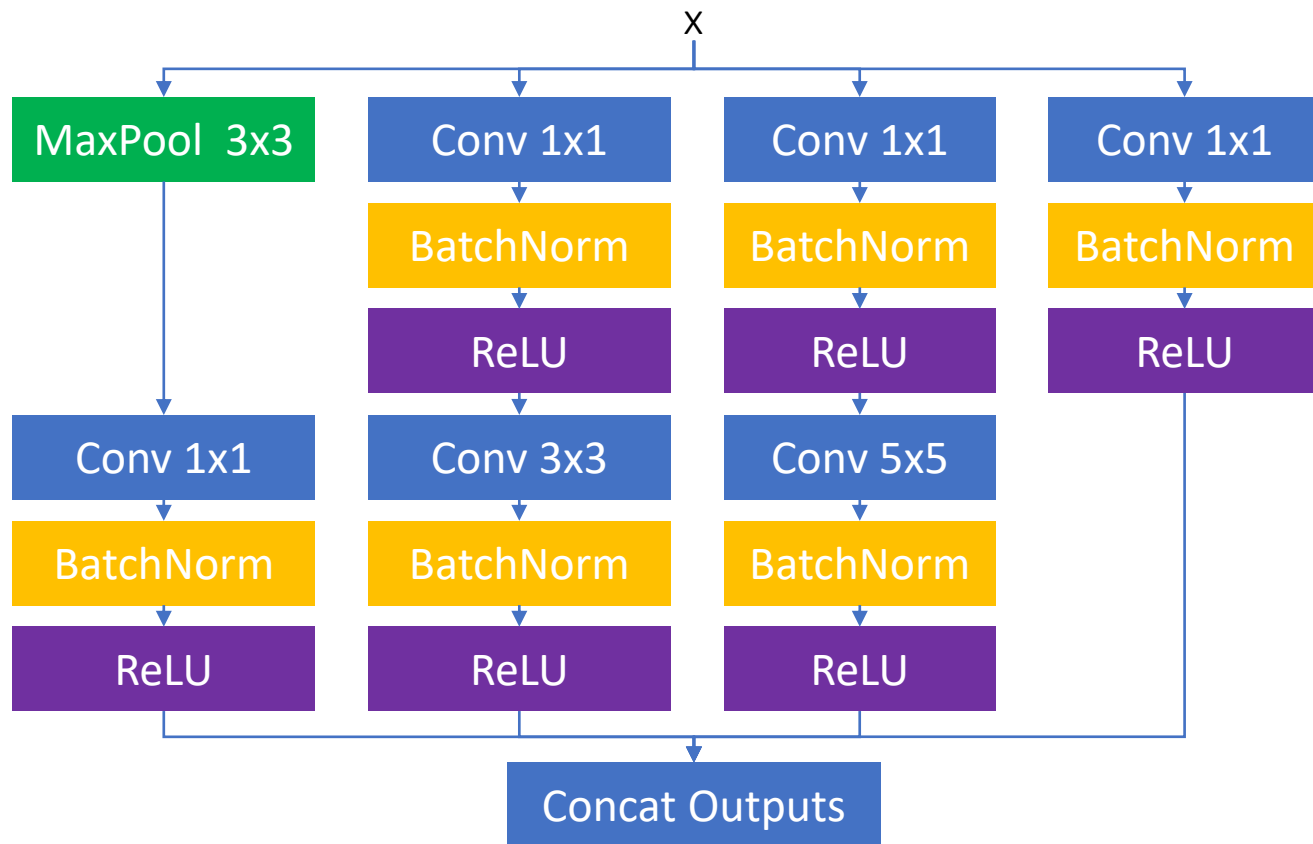


Source: Canziani, Culurciello, Paszke: „An Analysis of Deep Neural Network Models For Practical Applications“
<https://arxiv.org/pdf/1605.07678.pdf>

Inception

Introduction

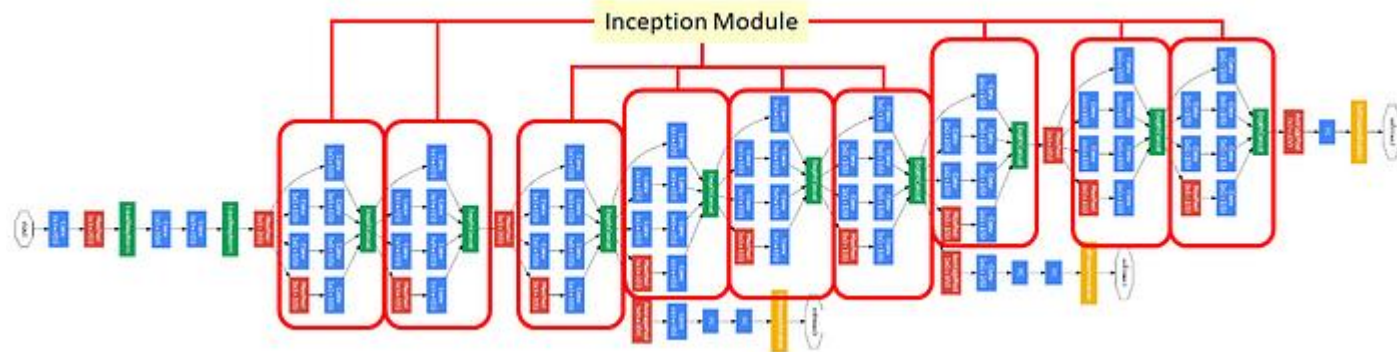
- developed by Google
- GoogleNet(v1) introduced in 2014
- v4 released in 2016
- consists of multiple **inception modules**



Inception

Key Features

- inception modules: multiple branches, with different filter sizes
- feature extraction: filters with different sizes → cover features on different scales
- dimensionality reduction: reduced dims of feature maps with „bottleneck layers“
- auxiliary classifiers



Source: <https://towardsdatascience.com/review-inception-v4-evolved-from-googlenet-merged-with-resnet-idea-image-classification-5e8c339d18bc>