Fast and Practical Neural Architecture Search (Supplementary Material)

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1. Ablation Study

We explore effect of using different optimization orders. Table 1 shows the comparison, which implies that search in the inverted order achieves the best performance.

Optimization Order	Top-1 (%)
Random order 1	95.73
Random order 2	95.73
Positive order	95.77
Inverted order	96.01

Table 1. FPNAS results using different optimization orders.

2. Segmentation Results

Fig. 1 shows the segmentation results of our re-implemented ShuffleNet V2 and our FPNASNet on ADE20K dataset.

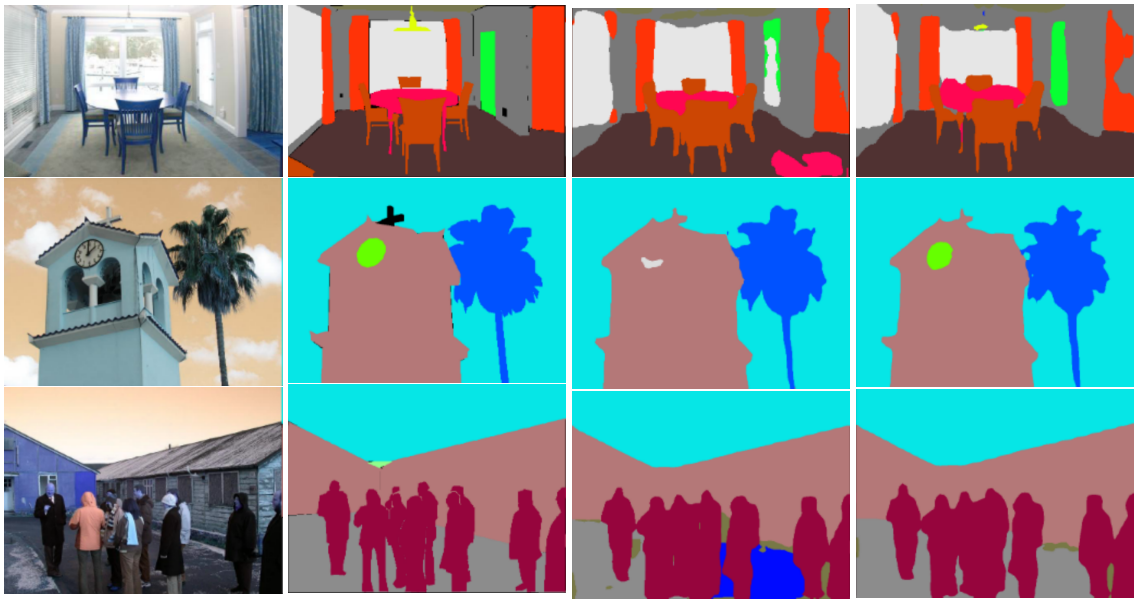

Figure 1. Results of semantic segmentation on ADE20K dataset.

*Equal contribution

3. Network Architecture

Figs. 2, 3, and 4 show details of our networks.

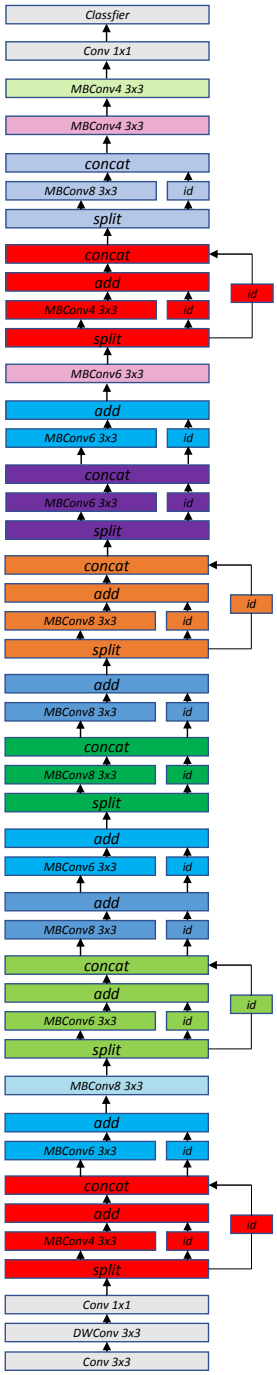

Figure 2. Structure of FPNASNet-A and FPNASNet. We obtain FPNASNet by adjusting FPNASNet-As channels to 300M FLOPs. Blocks in different colors possess various topological architectures.

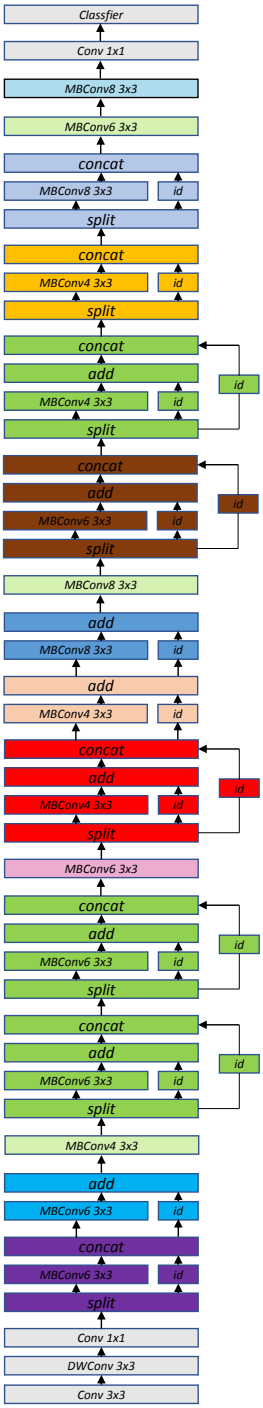

Figure 3. Structure of FPNASNet-B. Blocks of different colors contain their topological architectures.

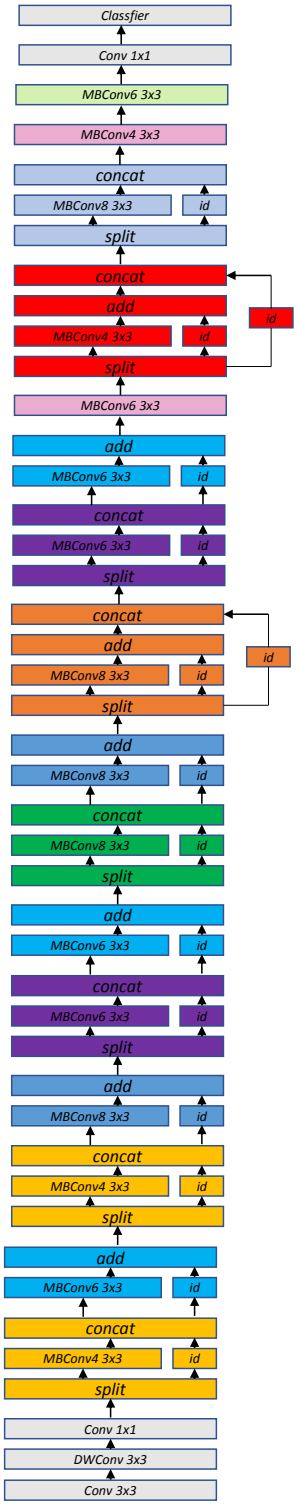

Figure 4. Structure of FPNASNet-C.