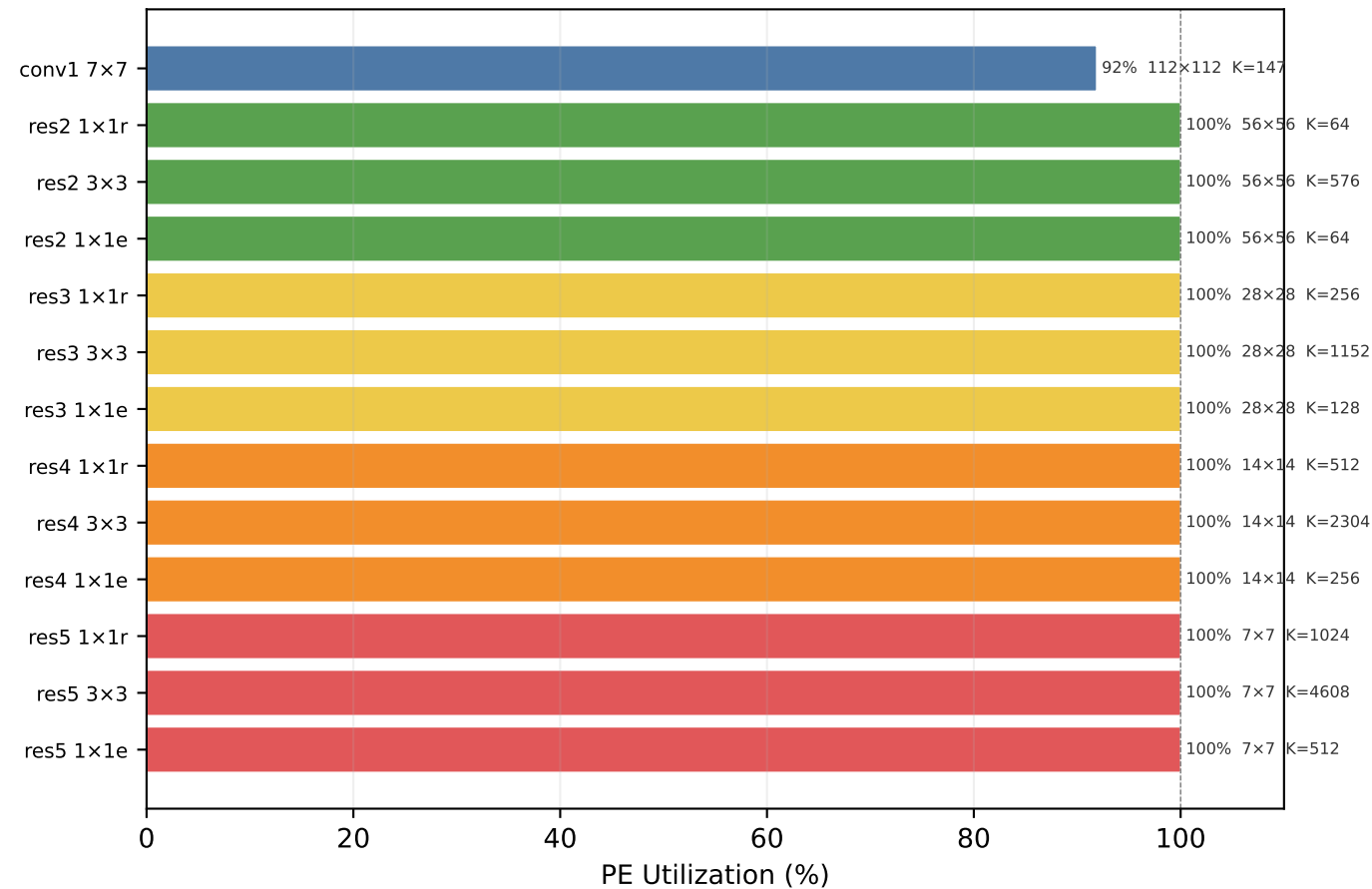
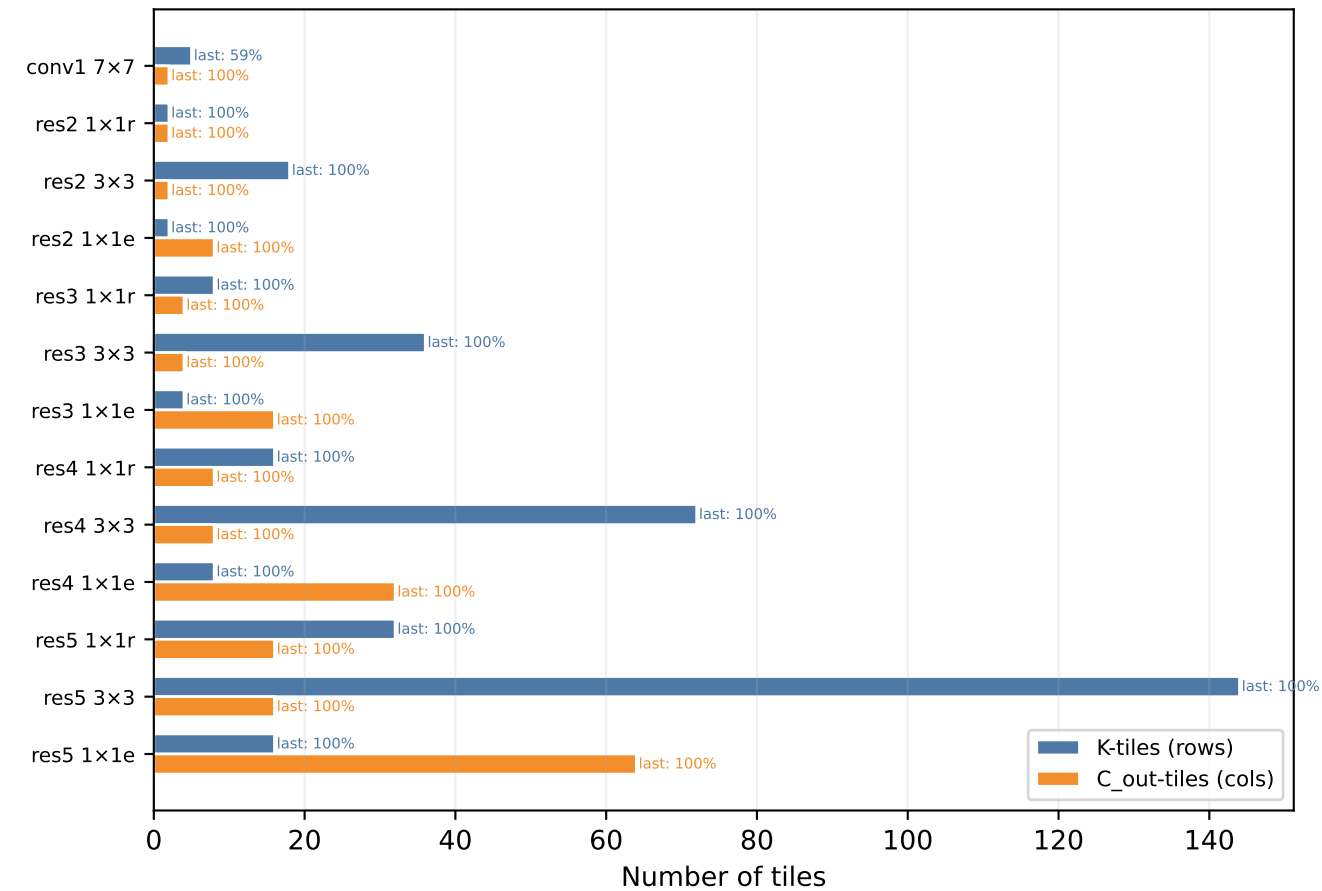


# Mapping & Tiling Analysis — K-rows / C\_out-cols 32×32 systolic array, N=1 inference

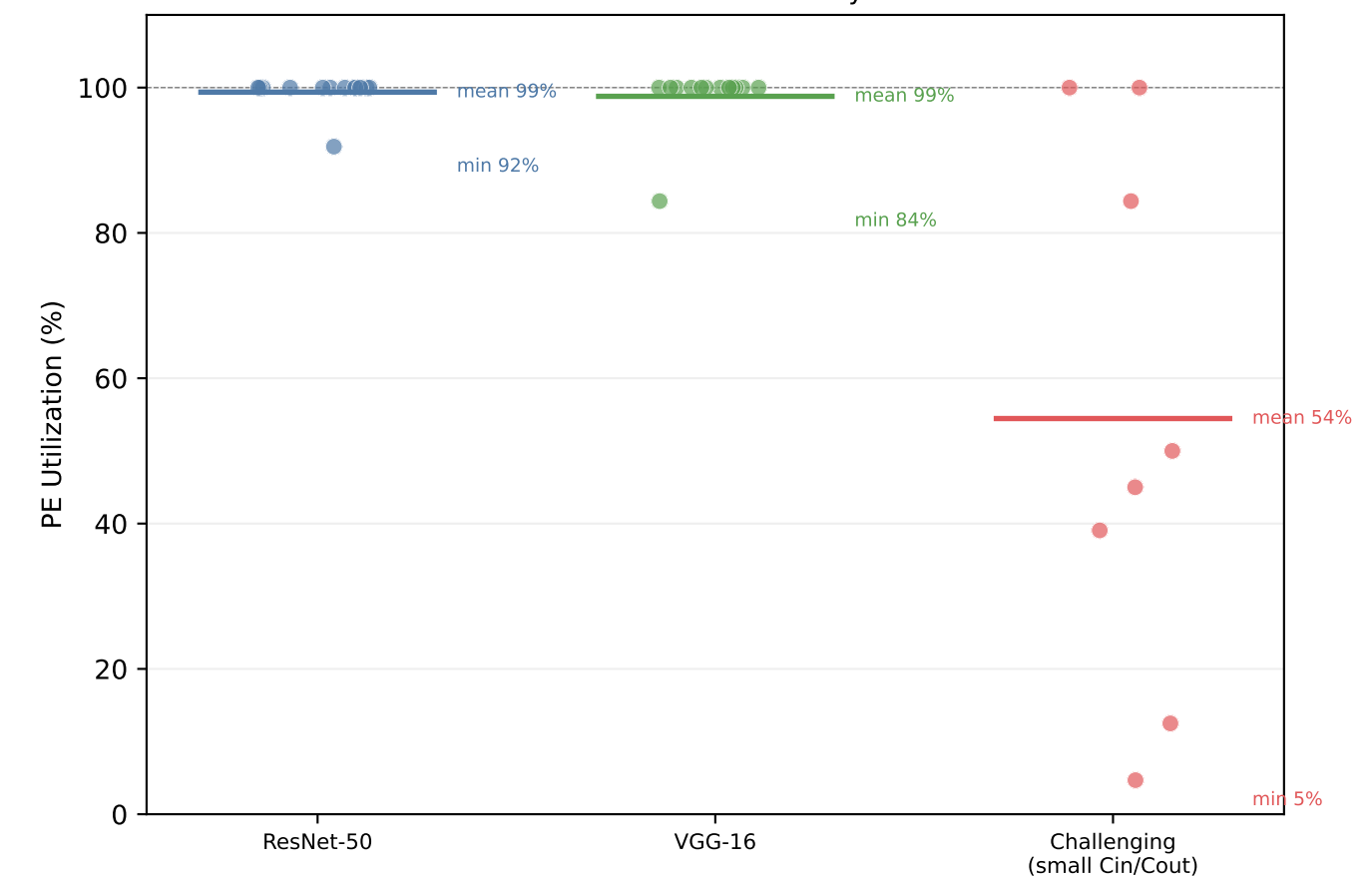
(a) ResNet-50: PE Utilization per Layer  
K-rows / C\_out-cols, N=1 inference



(b) ResNet-50: Tiling Breakdown  
# tiles + last-tile fill rate



(c) Cross-Model Utilization  
each dot = one conv layer



(d) Utilization Loss: Row vs Col Efficiency  
bottom-left = both dimensions waste PEs

