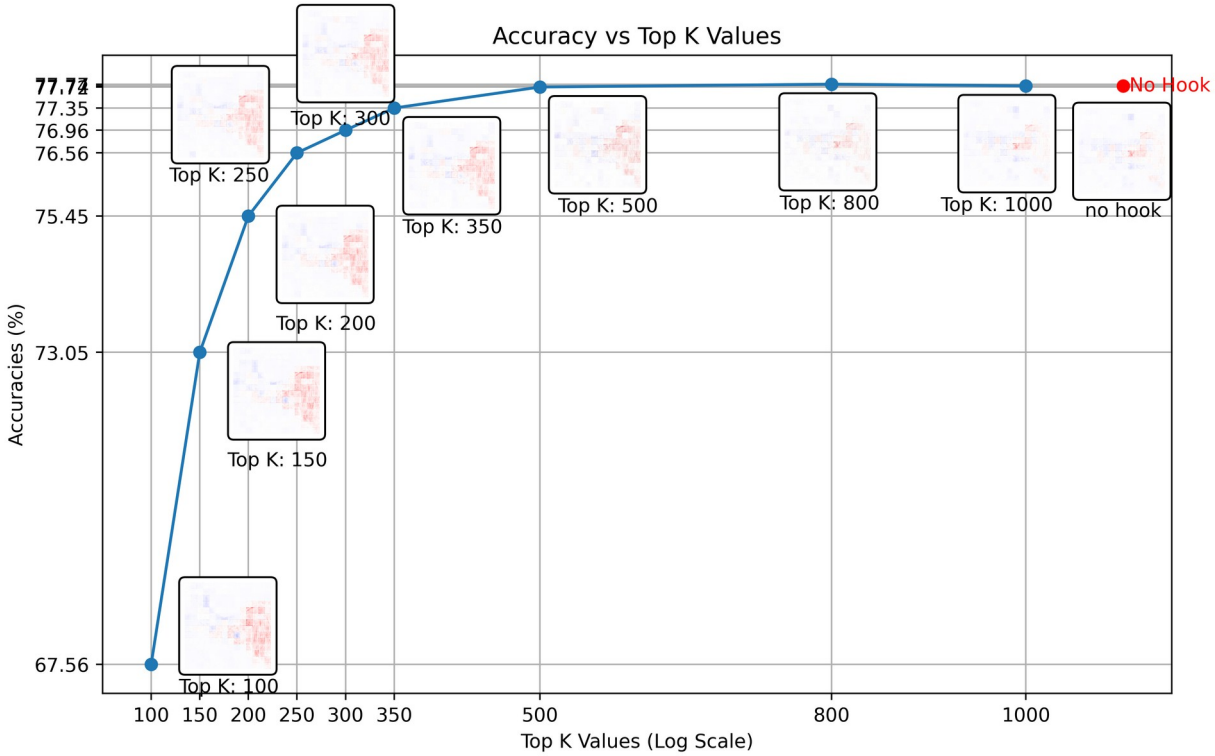
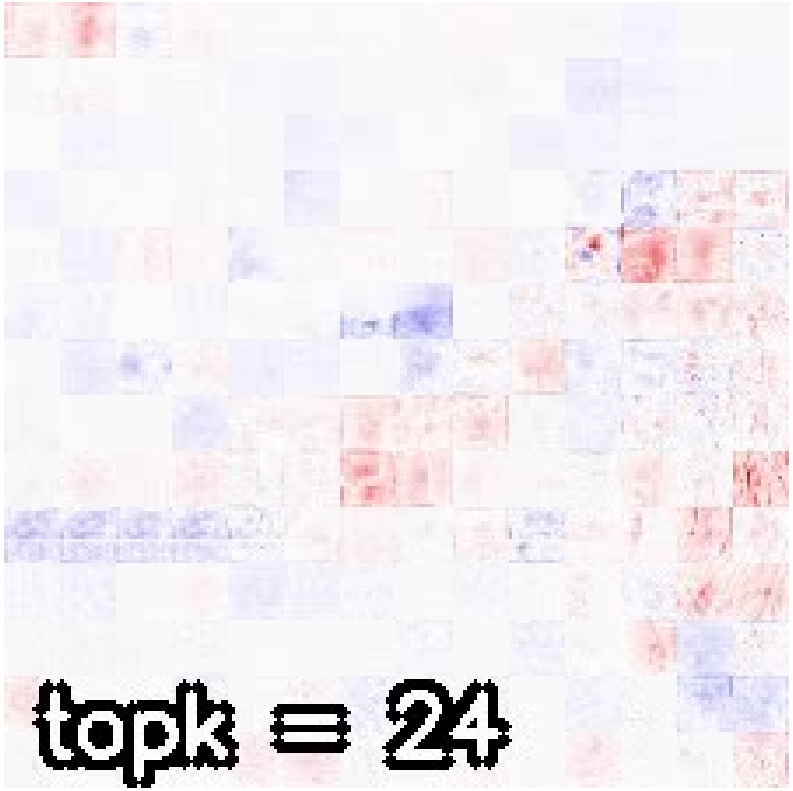
Findings on topk activations

VITL16 Model results

VIT L 16 Model accuracy (Tested on imagenet val set (6.4GB))



VIT L 16 Model heatmaps with different k values

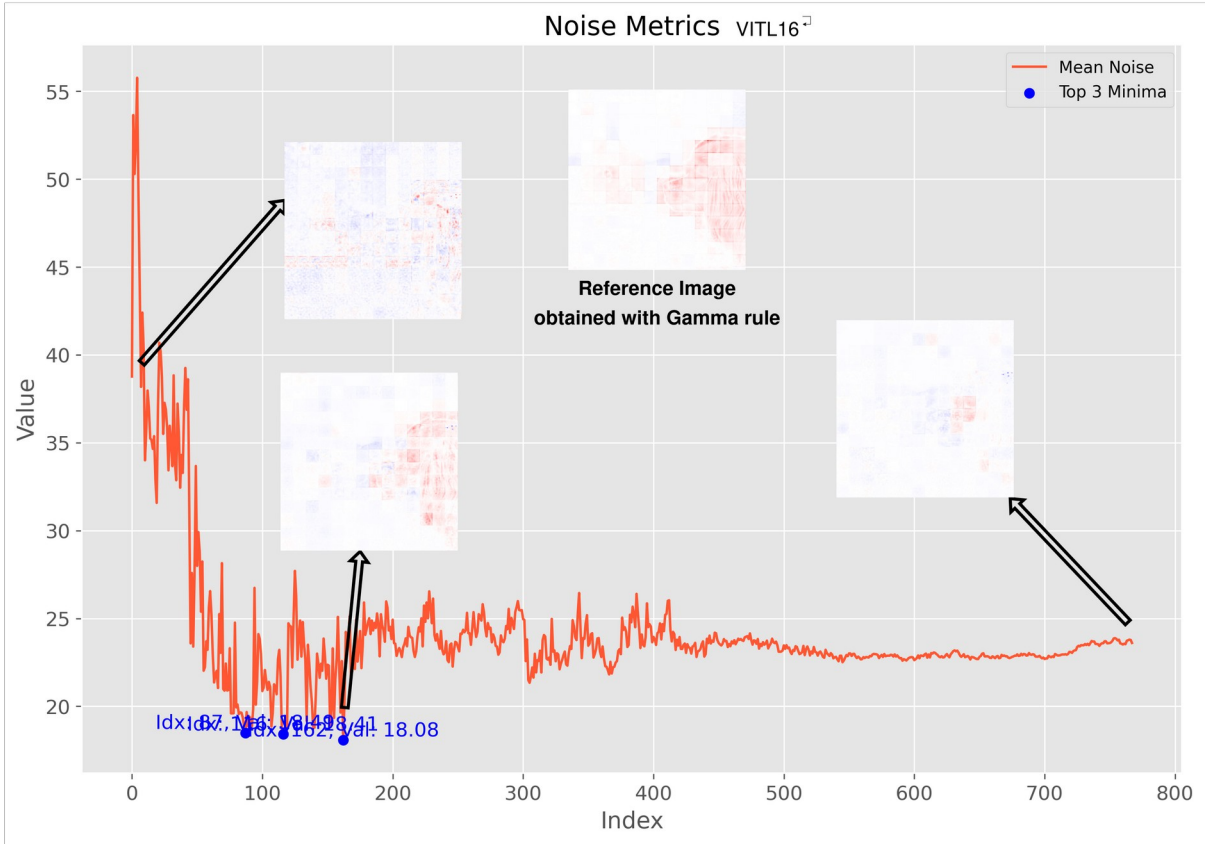


VIT L 16 Model heatmaps noise

- **Idea: choose reference image with “good” relevances → heatmap obtained with gamma rule**
- **Calculate MSE between reference image and topk produced images to get some measure of “noise” or “quality” of heatmap**

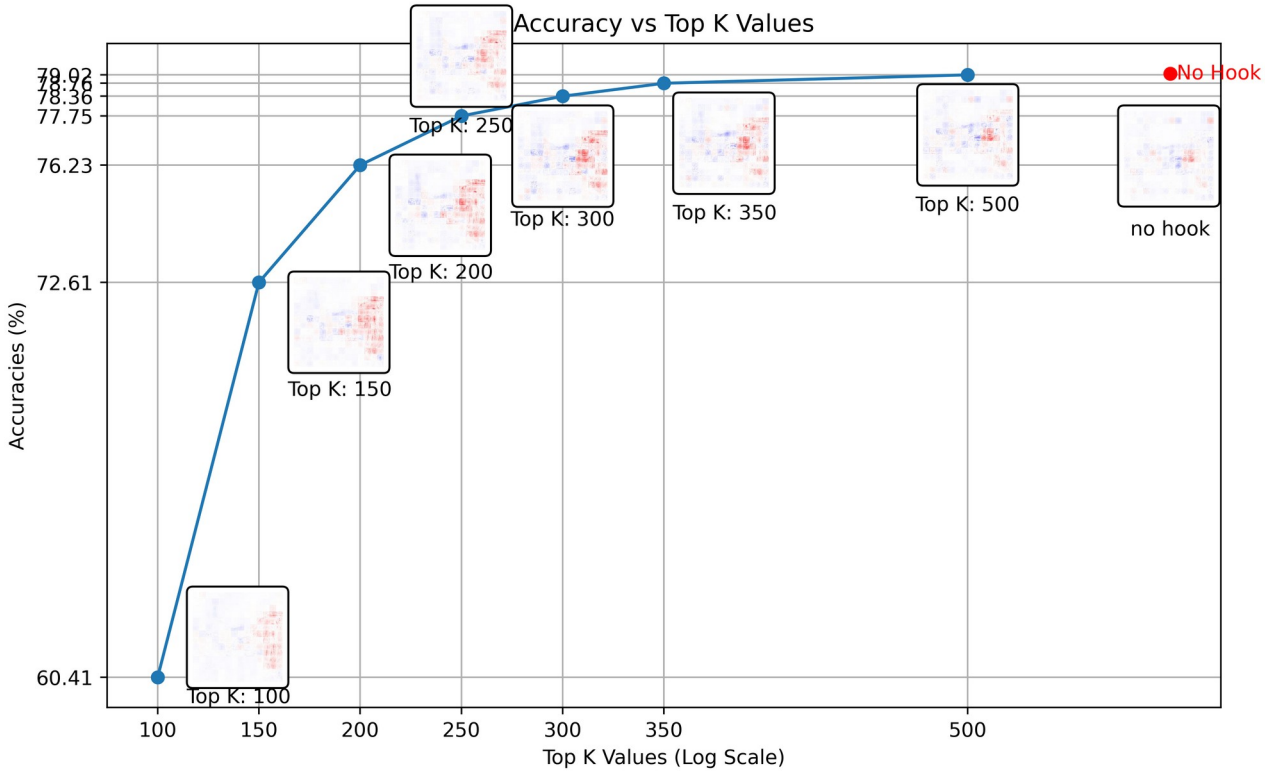
Reference image

VIT L 16 Model noise

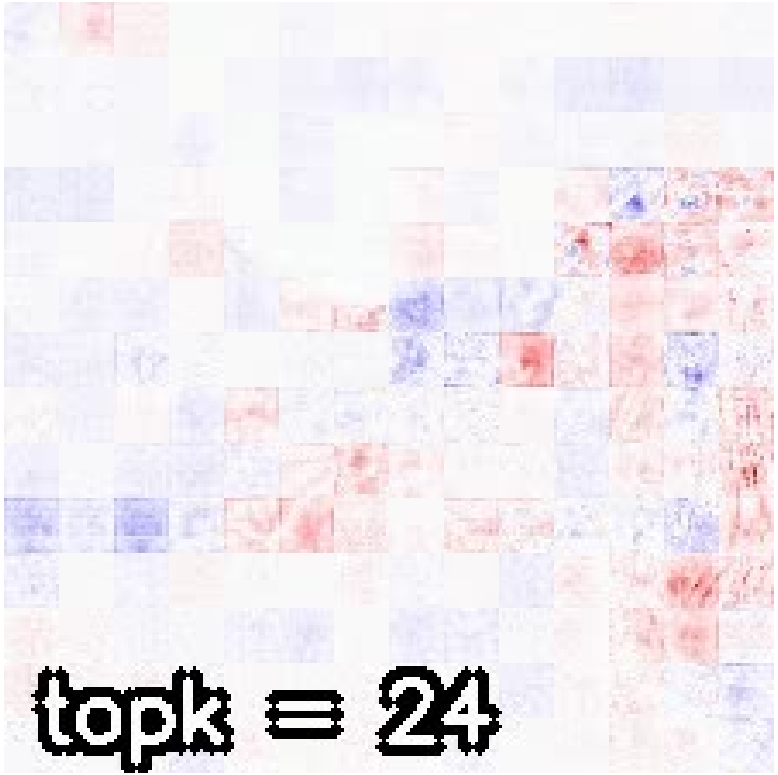


VITB16 Model results

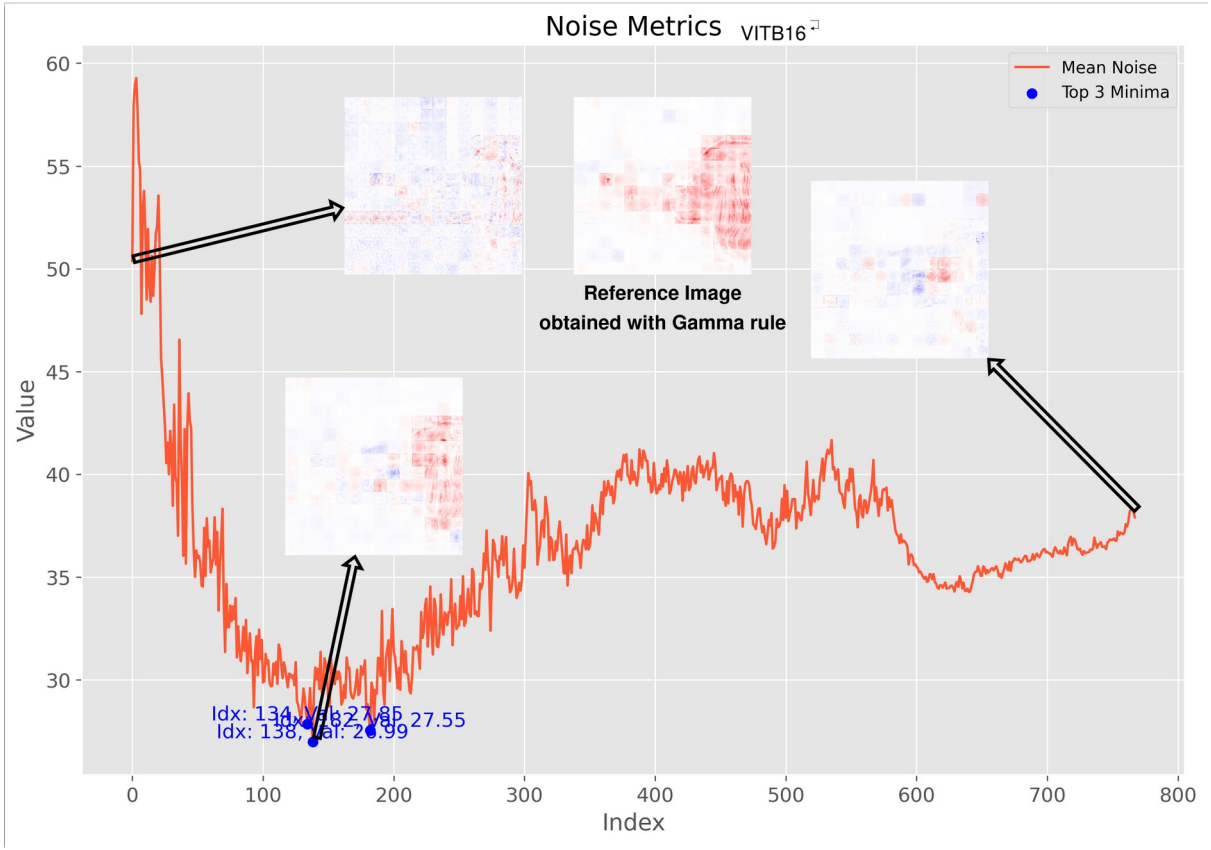
VIT B 16 Model accuracy (Tested on imagenet val set (6.4GB))



VIT B 16 Model heatmaps with different k values



VIT L 16 Model noise



ToDo

- Further investigate fourier transform analysis
- Find better error/noise measure
- Investigate connection between topk value and quality of heatmap, as the plots suggest no linear trend with high volatility