AlexNet Parameters Calculation

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Formula for parameter calculation:

1)Convolution Layer Parameters:

Parameters = (Kernel Height × Kernel Width × Input Channels × Number of Filters) + Number of Filters (biases)

2)Fully Connected Layer Parameters:

Parameters = (Input Features × Output Features) + Output Features (biases)

Layer-wise Parameter Calculation (Approximate)

Layer	Parameters
Conv1 (11×11×3×96 + 96)	34,944
Conv2 (5×5×96×256 + 256)	614,656
Conv3 (3×3×256×384 + 384)	885,120
Conv4 (3×3×384×384 + 384)	1,327,488
Conv5 (3×3×384×256 + 256)	884,992
FC1 (9216×4096 + 4096)	37,752,832
FC2 (4096×4096 + 4096)	16,781,312
FC3 (4096×1000 + 1000)	4,097,000

Total Parameters

The total number of parameters in the original AlexNet architecture is approximately 62 million parameters.