Read SENet paper

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This article propose a SE block to improve network performance, and from its result, the improved performance might be slight. The SE block is composed of two parts: squeeze part and excitation part, squeeze part is global average pool, it calculate every channel's mean value, the fomulation is $z_c = F_{sq}(u_c) = \frac{1}{H*W}\sum_{i=1}^{H}\sum_{j=1}^{W}u_c(i,j)$ U is the output feature in previous,has the shape of H*W*C, and u_c is the $c_t h$ channel of U, and the z_c is the final output feature mean value, which will be used is the excitation part. For the excitation part, there is two FC layer, the formulation is $s = F_{ex}(z, W) = \sigma(W_2\delta(W_1 z))$. δ is ReLU function, σ is sigmoid function, and the final result is $x_c = s_c u_c$, the final result is every factor in s multiply every u_c in u. note: the author say in FC layer, omit the bias is better.