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Ensemble Based Deep Networks for Image Super-Resolution

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Highlights

- We suggest a general and simple method to improve the performance of learning-based image super-resolution methods by using the ensemble of multiple models to reconstruct high-resolution results.
- We focus on Sparse Coding Network (SCN) and propose a new state-of-the-art method named Ensemble based Sparse Coding Network (ESCN).
- A back-projection method is introduced to solve the weights of different ensemble models.
- We accelerate the training of SCN (about 120x faster) by using batch normalization.

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