A Novel Localized and Second Order Feature Coding Network for Image Recognition

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highlights

- We propose a new structure end-to-end model called Localized and second-order VLAD Network (LSO-VLADNet) for image recognition.
- The proposed network uses an end-to-end dimension reduction layer to ensure the learned feature has low dimension and discrimination.
- All the layers in our proposed network are differentiable, the back-propagation models of all newly designed layers are obtained in this paper, and the entire network is trained by the end-to-end manner.
- Experiments on four image databases demonstrate that the proposed network is very competitive.