

ETNet: Error Transition Network for Arbitrary Style Transfer

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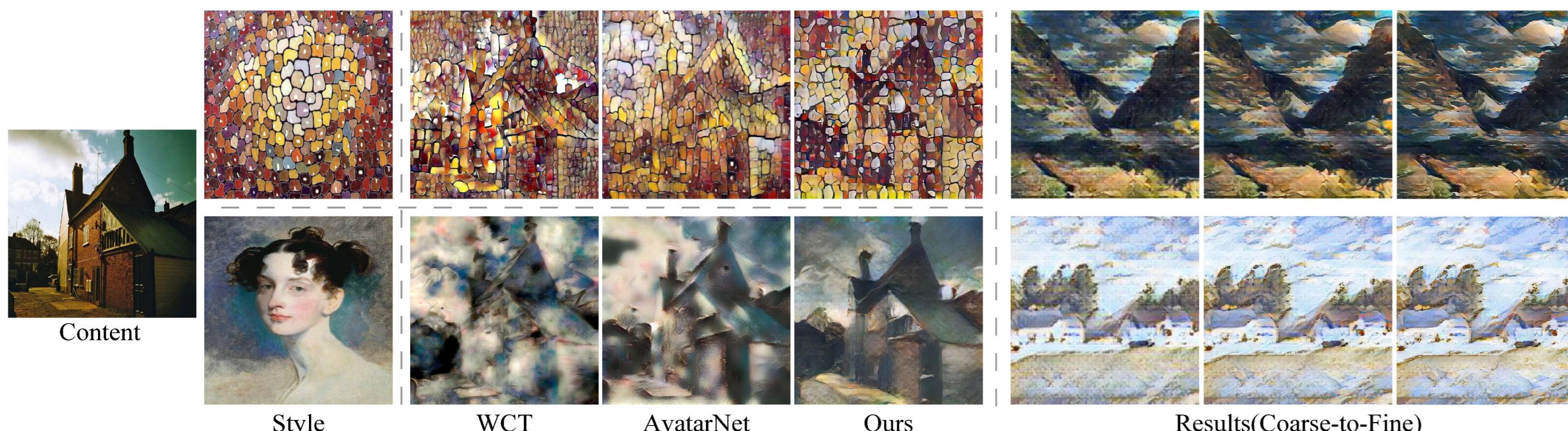
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* equal contribution

OVERVIEW

"Achieve arbitrary style transfer through iterative error-correction"

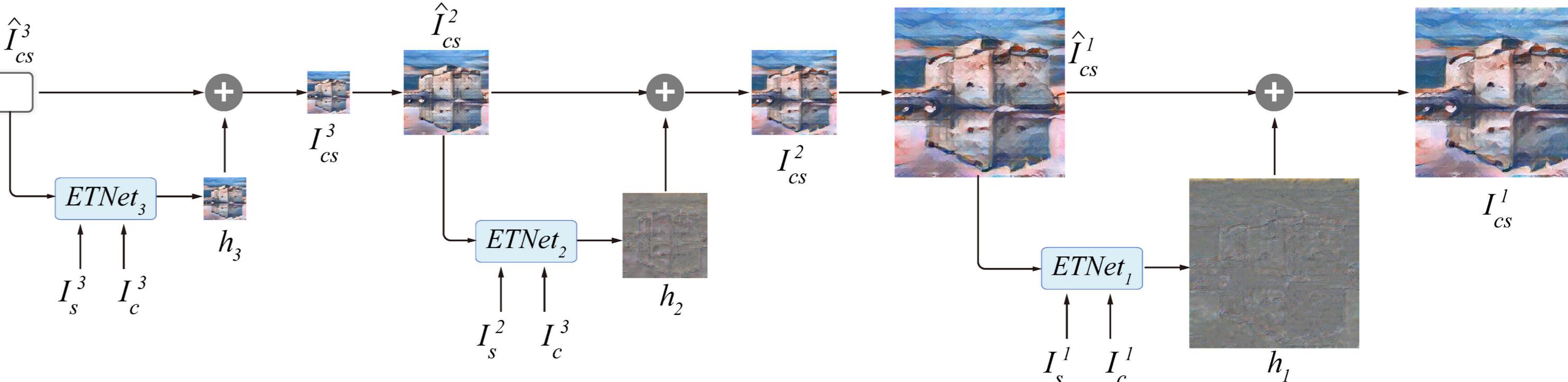


CONTRIBUTIONS

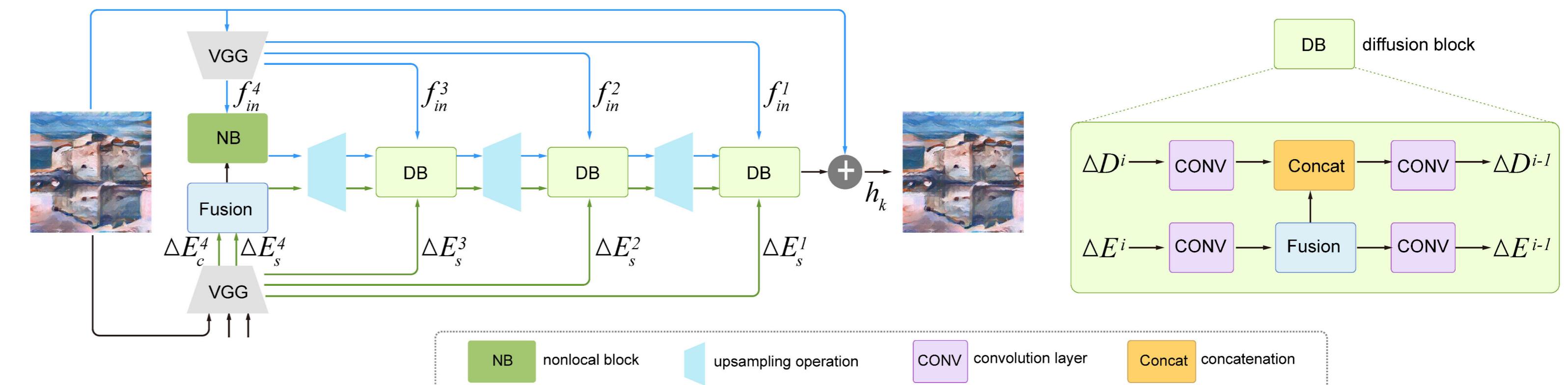
- First introduce the concept of error-correction mechanism to style transfer. Evaluate errors in stylization results and correcting them iteratively.
- Formulate each refinement as an error diffusion process. Explicitly computing the features for perceptual loss.
- Perform arbitrary style transfer and synthesize highly detailed results with favored styles.

METHOD

1. Our method achieves arbitrary style transfer through several coarse-to-fine refinements.

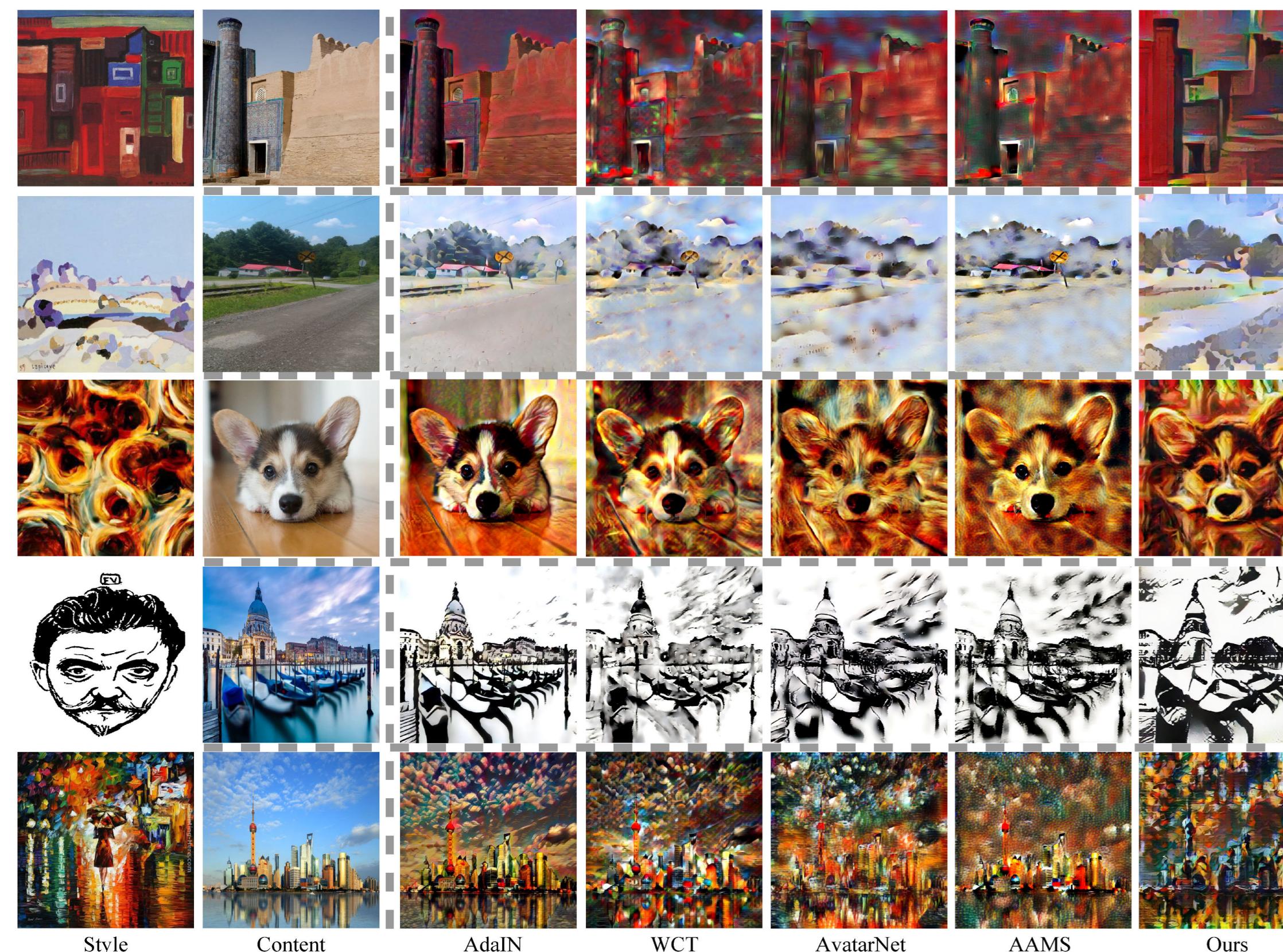


2. In each refinement, we compute errors in a feed-forward manner and propagate them among both the spatial and scale domain for a residual image.

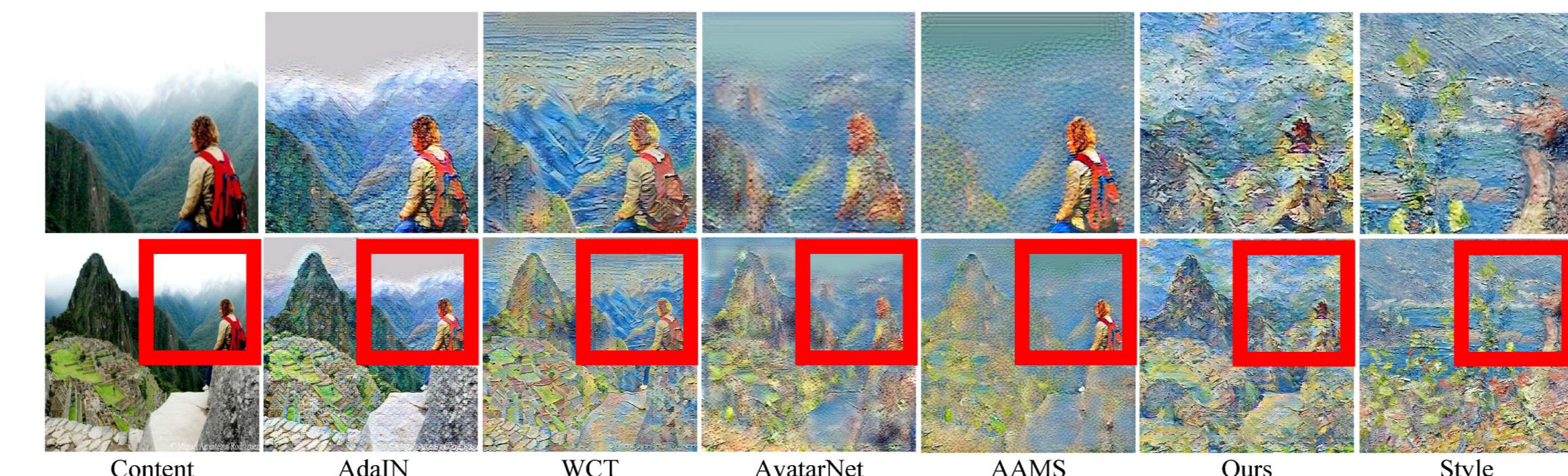


RESULT

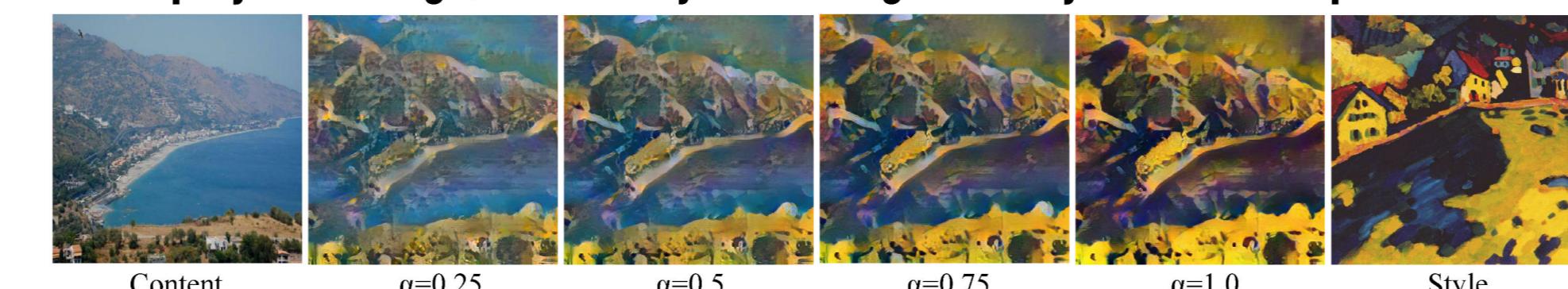
Comparison with results from different methods



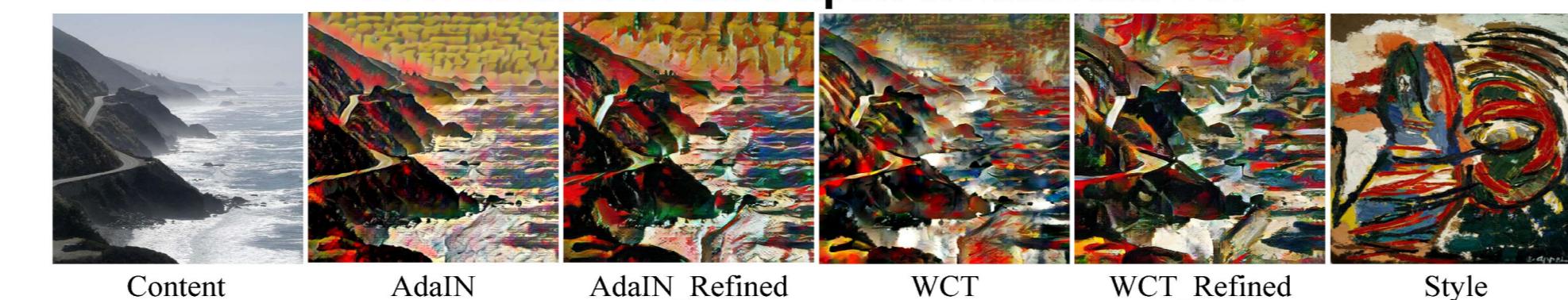
Detail cut-outs



At deployment stage, we can adjust the degree of stylization with parameter α



A refinement for the outputs of AdalN and WCT



Stylization matrix of applying different styles to different content images

