

Supplementary Material: Image Deraining with Frequency-Enhanced State Space Model

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1 Detailed Description of 2D-SSM

Our proposed DFSSM employs the 2D Selective Scan Module (2D-SSM) [2, 3]. This section describes the 2D-SSM as illustrated in Fig. 1. The input two-dimensional features are traversed along four different scanning paths. These sequences are fed into selective State Space Mode (S6) [1] blocks individually. The outputs of S6 blocks are scanned in their original order and converted to two-dimensional features. The sum of the four results constitutes the final output features.

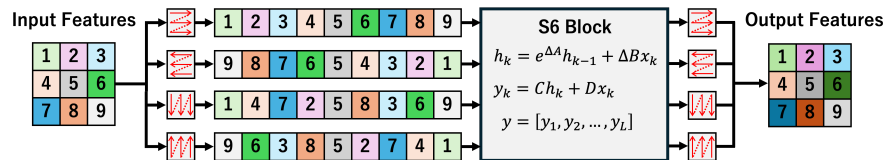


Fig. 1: Illustration of 2D Selective Scan Module (2D-SSM) [2, 3].

References

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2. Guo, H., Li, J., Dai, T., Ouyang, Z., Ren, X., Xia, S.T.: Mambair: A simple baseline for image restoration with state-space model. arXiv preprint arXiv:2402.15648 (2024)
3. Liu, Y., Tian, Y., Zhao, Y., Yu, H., Xie, L., Wang, Y., Ye, Q., Liu, Y.: Vmamba: Visual state space model. arXiv preprint arXiv:2401.10166 (2024)

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