NTIRE 2023 Efficient SR Challenge

Factsheet Information

Team details

• Team name :Loading2
• Team leader name :Min Gao
• Team leader address, phone number, and email :Xidian university,18834192125,1157632500@qq.com
• Rest of the team members:Jingwen Zhang,Ruonan Wang
•User names and entries on the NTIRE 2023 Codalab competitions (development/validation and testing phases):min_gao
•Best scoring entries of the team during development/validation phase :psnr=29.43
•Link to the codes/executables of the solution(s): https://github.com/bjckwrn/team36-NTIRE2023_ESR-main.git

Method details

•General method description (How is the network designed.) :Based on the strong baseline model SwinIR. The front and back modules are based on CNN, and the middle module mainly uses SwInTransformer.
•Training strategy :The batch size is set to 8. The learning rate is set to 2e-4 .We train all models for total 1048 epochs.
•Experimental results :

MODEL	SwinIR	MPRNet	ABPN	NAFNet	BSNR
PSNR	29.43	29.01	29.12	29.23	29.52

•References:

[1] Li, Yawei, et. al, "NTIRE 2022 challenge on efficient super-resolution: Methods and results." CVPR Workshops, 2022.
[2] Zhang, Kai, et al. "AIM 2020 challenge on efficient super-resolution: Methods and results." ECCV Workshops, 2020.

•Total method complexity (number of parameters, FLOPs, GPU memory consumption, number of activations, runtime) :

Params	FLOPs	Activations	GPU memory consumption
0.9102M	217.5074G	24.3794M	8132M