Abstract

*We seek to improve crowd counting on both prediction accuracy and time efficiency by not limiting on the current prevalent counting by density map methods but to propose a novel deep CNN that focuses on prediction of a global count besides efficiently leveraging advantages of density maps and optionally producing them. We introduce multilayer gradient fusion for training a density-aware count regressor. By taking advantage of such approach, we outperform the state-of-the-art methods with 27.5%, 2.7%, 14.3% lower MAE on UCF-QNRF, Shanghai Tech Part A and Part B datasets respectively. Our code and models will be publicly available at: https://github.com/****.*