As introduced in Sec1.1 of the letter, existing de-raining models can be categorized into two groups: Prior-Guided (PG) models and direct Rainy-to-Clean translation (R2C) models. By re-implementing most SOTA models of each group (our implementation of these models will be released in the GitHub page after paper acceptance), we found that PG models generally perform much better than the R2C models with the prior guidance, especially the location prior guidance. Subsequently, driven by the curiosity on how the PG models work, we delve deep into the mechanism of existing models and occasionally find their deficiency by analyzing the filter behaviors. Motivated by this, we propose to overcome the deficiency and design a more advanced prior utilization framework, and finally derive the CAG-Net. The explanation on the formulation of each module and stage are carefully provided at each Section, and also elaborate experiments are also provided to verify our claim.

Furthermore, we will carefully re-organize Section 1 of the paper to explain the motivation and contribution better, as well as provide a briefer summary of the core idea. Also see Sec 1.1 of the letter for clearer explanation on the motivation and contribution of CAG-Net.