Bidirectional Weighted Loss with Feature Perception for Self-supervised Learning of Consistent Depth-pose

Fei Wang, Jun Cheng and Penglei Liu

CAS Key laboratory of Human-machine Intelligence-Synergy Systems, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, China

- Take full advantage of limited data by using the bidirectional photometric loss.
- Deal with moving objects and occlusions by reweighting the bidirectional photometric loss.
- Improve the robustness for textureless regions by employing the bidirectional feature perception loss.
- Enforce consistency between depths by employing the bidirectional depth structure consistency loss.

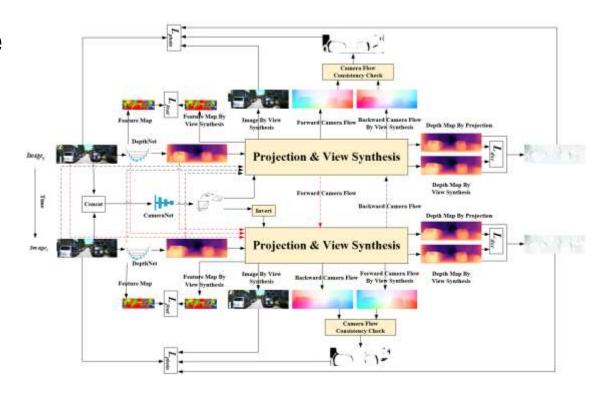


Diagram of the general framework