

MATCHER: SEGMENT ANYTHING WITH ONE SHOT USING ALL-PURPOSE FEATURE MATCHING

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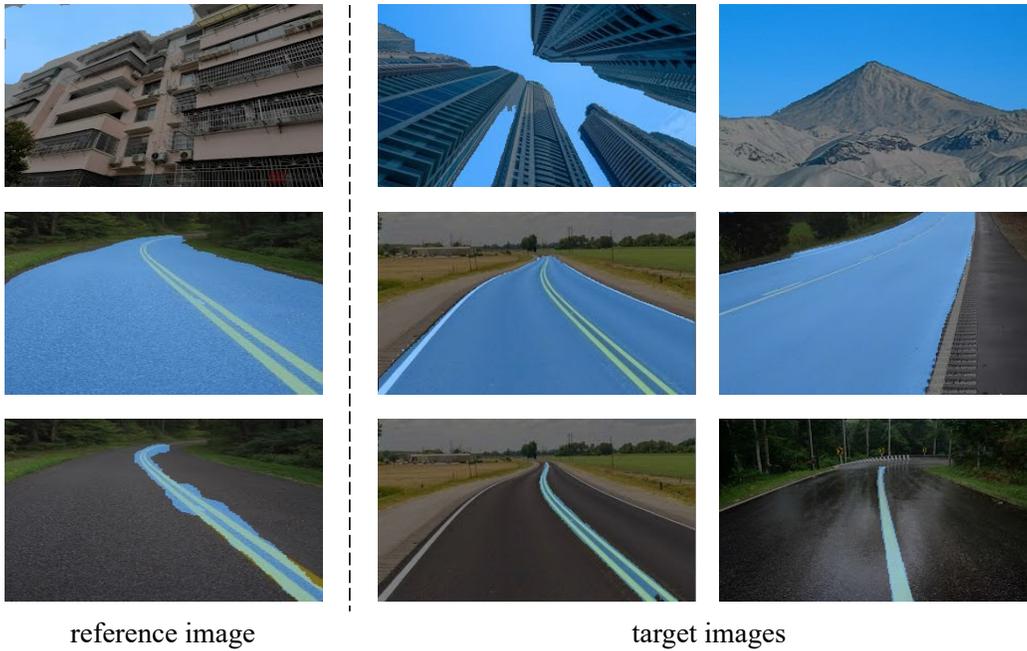


Figure 1: Visualization of Matcher for the quality of background concept segmentation. Matcher can segment various background concepts like SegGPT.



Figure 2: Visualization of the intermedia results of Patch-Level Matching (PLM), Robust Prompt Sampler (RPS) and Instance-Level Matching (ILM). (a) For PLM, the **Green** stars present the correct matched points, and the **Red** stars present the matched outliers. The PLM can effectively remove most of the outliers via proposed bidirectional matching. (b) RPS can sample various point prompts by using the matched points of PLM. (c) Take the prompts as inputs, SAM can output the mask proposals. Because there are still outliers in the matched points, SAM can output some false-positive (FP) masks. Thus, we propose ILM to filter these FP masks and merge the true-positive (TP) masks. Then, we can get the result. These components within the Matcher framework collaborate with foundation models and unleash their full potential in diverse segmentation tasks.