— Supplementary Material —
Adaptive Reordering Sampler with Neurally Guided MAGSAC

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Input Correspondence Structure. Each input SIFT correspondence is represented by a 7-dimensional vector comprising of various elements. The first four dimensions correspond to the coordinates of the corresponding points in the two images, specifically (x_1, y_1) and (x_2, y_2). An additional dimension is derived from the Second Nearest Neighbor (SNN) ratio, which can be interpreted as an indicator of the matching quality. Furthermore, we incorporate scale ($q \in \mathbb{R}$) and rotation ($\alpha \in [0, 2\pi]$) values that are derived from the image features. Specifically, the scale value, q, represents the ratio of the feature sizes in the two images and is calculated as $q = q_2/q_1$. Here, q_i denotes the feature size in the ith image. Similarly, the rotation value, α, represents the relative rotation from the first to the second image and is calculated as $\alpha = \alpha_2 - \alpha_1$, where α_i denotes the orientation in the ith image. Hence, these parameters can be combined to form a 7-dimensional vector represented as $[x_1, y_1, x_2, y_2, \text{SNN}, q, \alpha]$.