FOCUS - Multi-View Foot Reconstruction from Synthetically Trained Dense Correspondences

Supplementary Material

9. Further examples

Synthetic dataset. In Figure 9, we show additional samples of our synthetic dataset.

In-the-wild predictions. In Figure 10, we show further qualitative predictions of our TOC and normal predictions on in-the-wild images.

Reconstruction. In Figure 11, we show further qualitative reconstruction comparison to existing methods FOUND [13] and COLMAP [32, 33].

10. Method hyperparameters

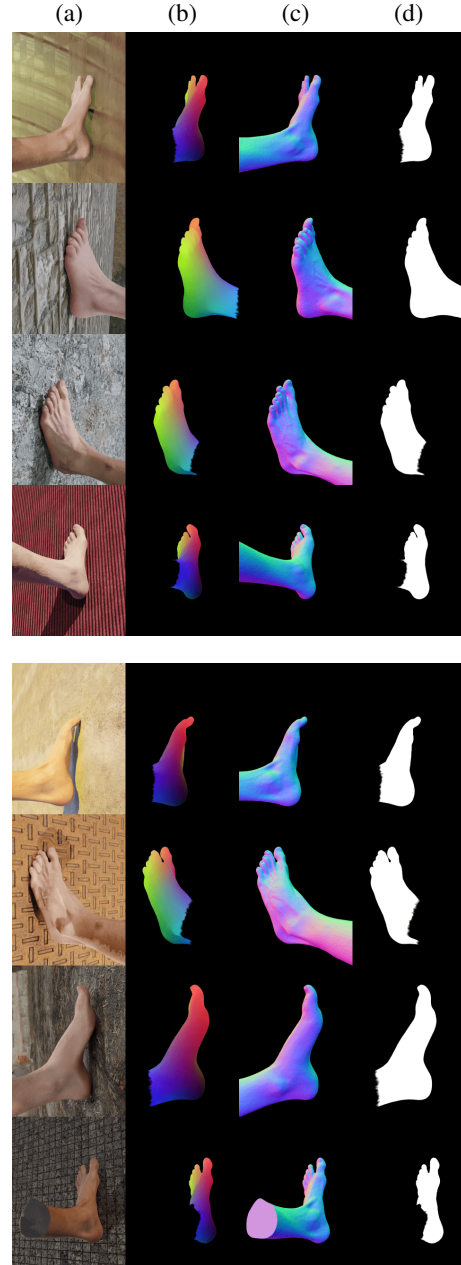We define the hyperparameters used for FOCUS-SfM in Table 5.

Figure 9. **SynFoot2 examples.** Further examples of SynFoot2, showing (a) RGB, (b) TOC, (c) surface normals, and (d) segmentation masks.
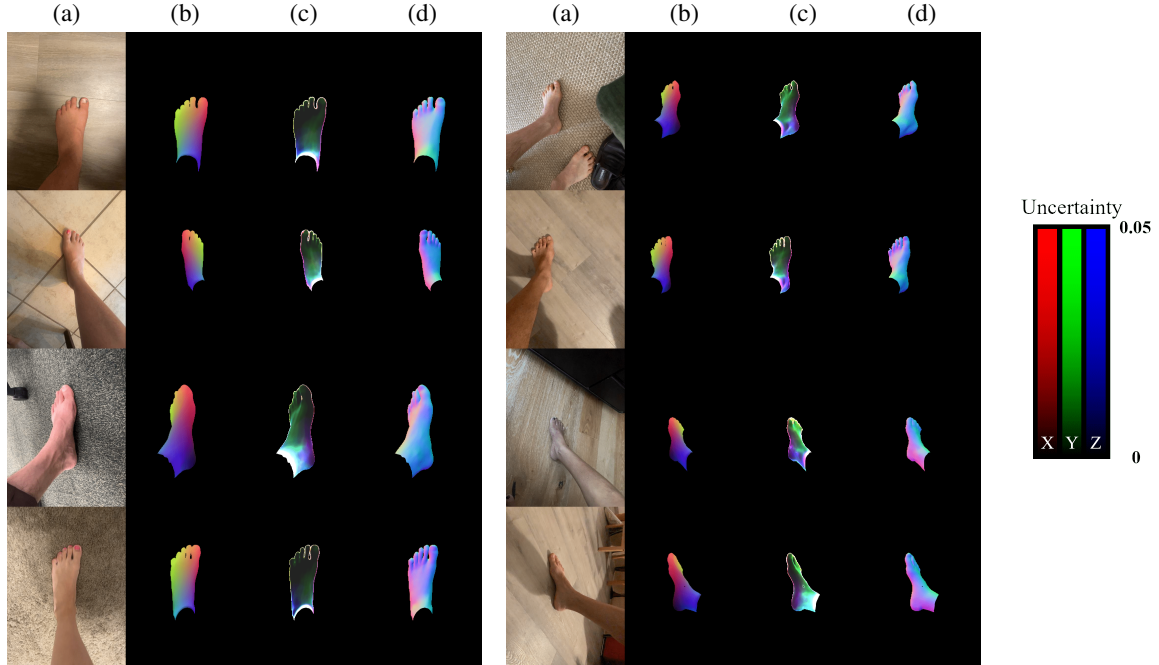
Figure 10. **In-the-wild predictions.** Further examples of in-the-wild predictions of our TOC predictor, showing showing (a) RGB input, (b) TOC $\mathbf{t}$, (c) TOC uncertainty $\boldsymbol{\sigma_t}$, and (d) surface normals. We show some more challenging examples in the right figure, even showing robustness to a secondary foot in the image.

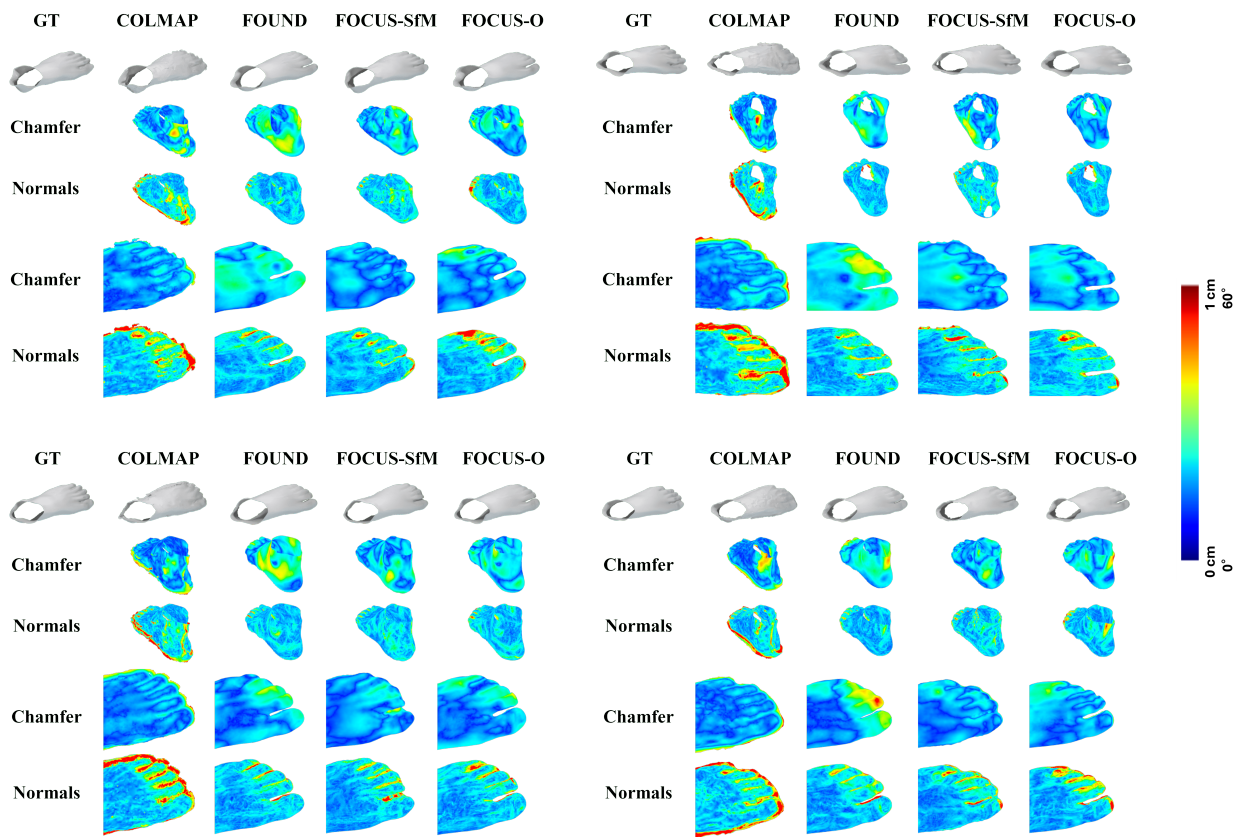| Description	Value	Unit
Number of samples taken per image	3000	-
Maximum $\ell 2$ distance to consider a correspondence a match	0.002	-
Upsampling factor for subpixel matching	8	-
Reprojection error above which to filter triangulated points	3	pixels
Crop the mesh to this padding around reconstructed point cloud	1	mm
Foot mesh height interval	[0, 150]	mm
Poisson reconstruction - depth	8	-
Poisson reconstruction - iterations	8	-

Table 5. Hyperparameters chosen for FOCUS-SfM.

Figure 11. **Qualitative reconstruction results.** The reconstruction quality is compared across four further scans in the Foot3D dataset, comparing COLMAP, FOUND, FOCUS-SfM and FOCUS-O.