Structured 3D Features for Reconstructing Relightable and Animatable Avatars

Enric Corona, Mihai Zanfir, Thiemo Alldieck
Eduard Gabriel Bazavan, Andrei Zanfir, Cristian Sminchisescu

Google

Poster #45

https://enriccorona.github.io/s3f

Input image

Geometry

Albedo

Shading

Input image

Geometry

Albedo

Shading

New View

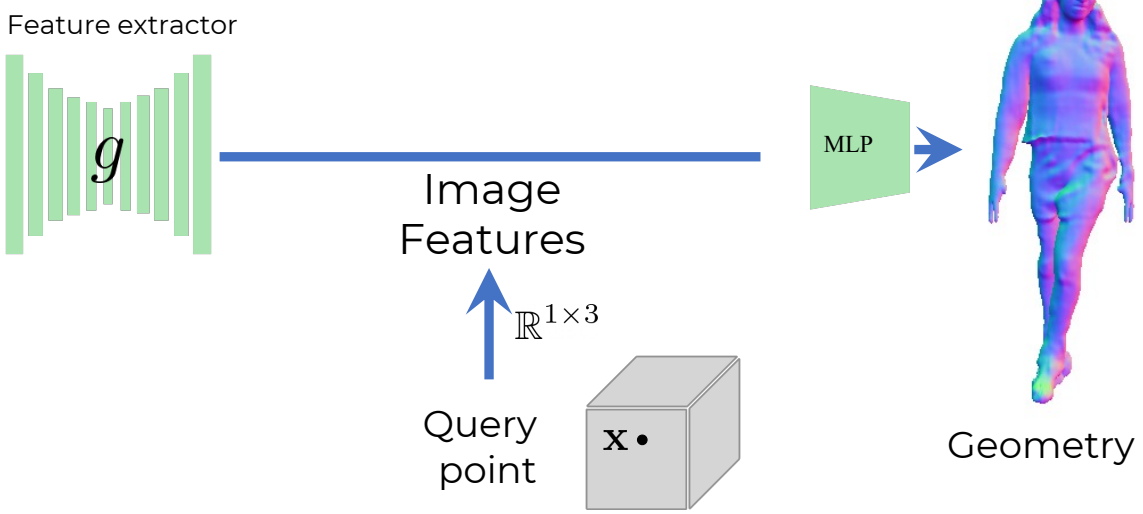
New Illumination

New Pose

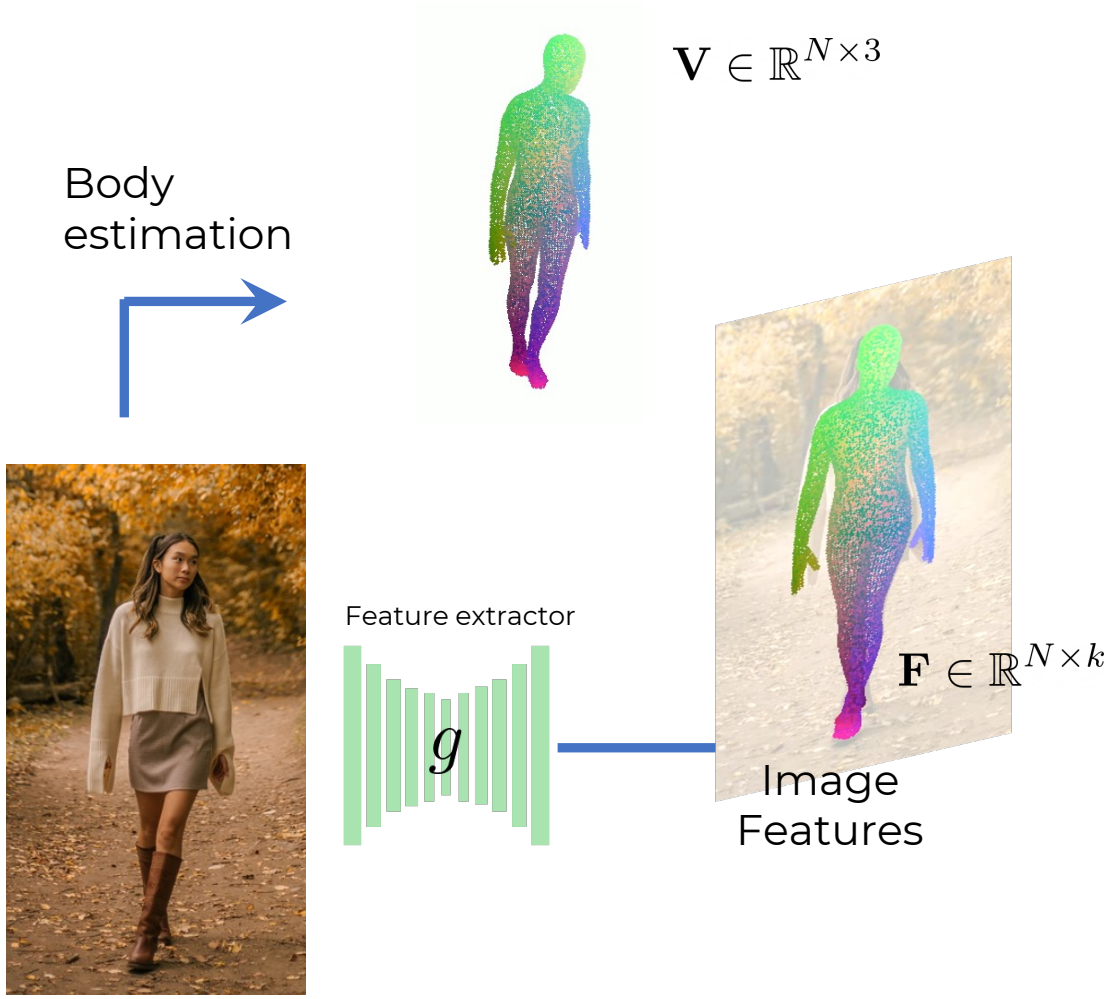
New Clothing

State-of-the-Art in 3D Human Reconstruction

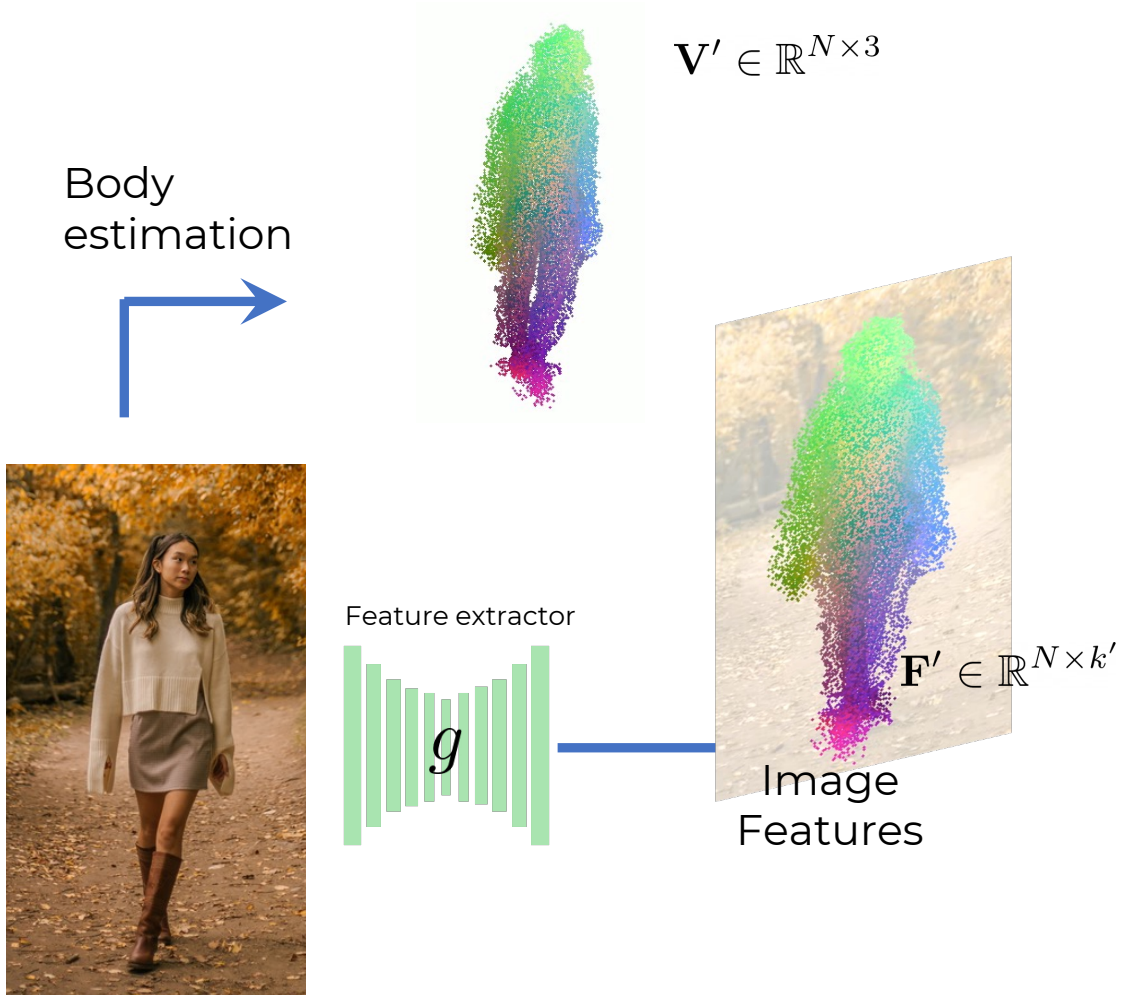
Input Image



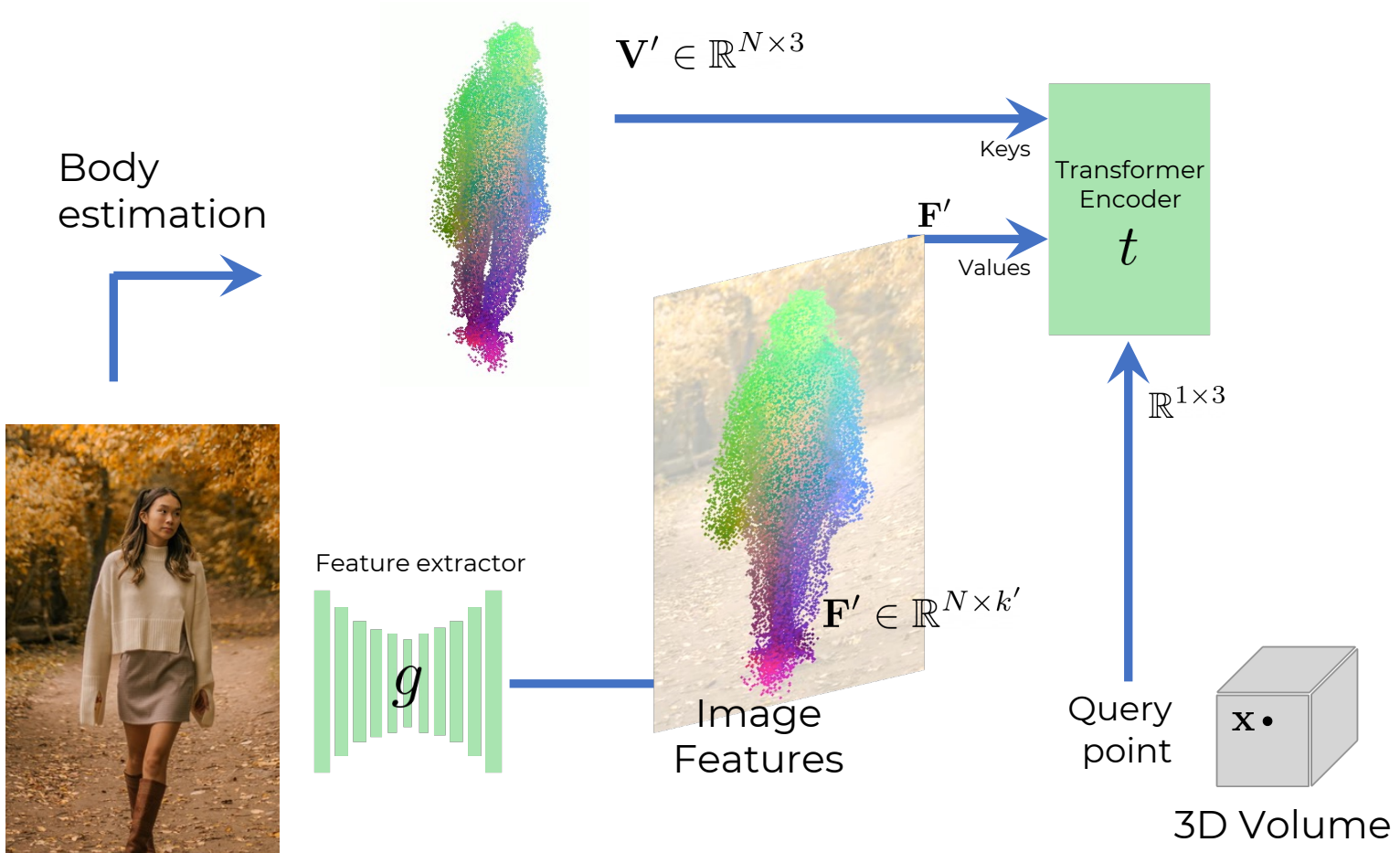
Method: Structured 3D Features



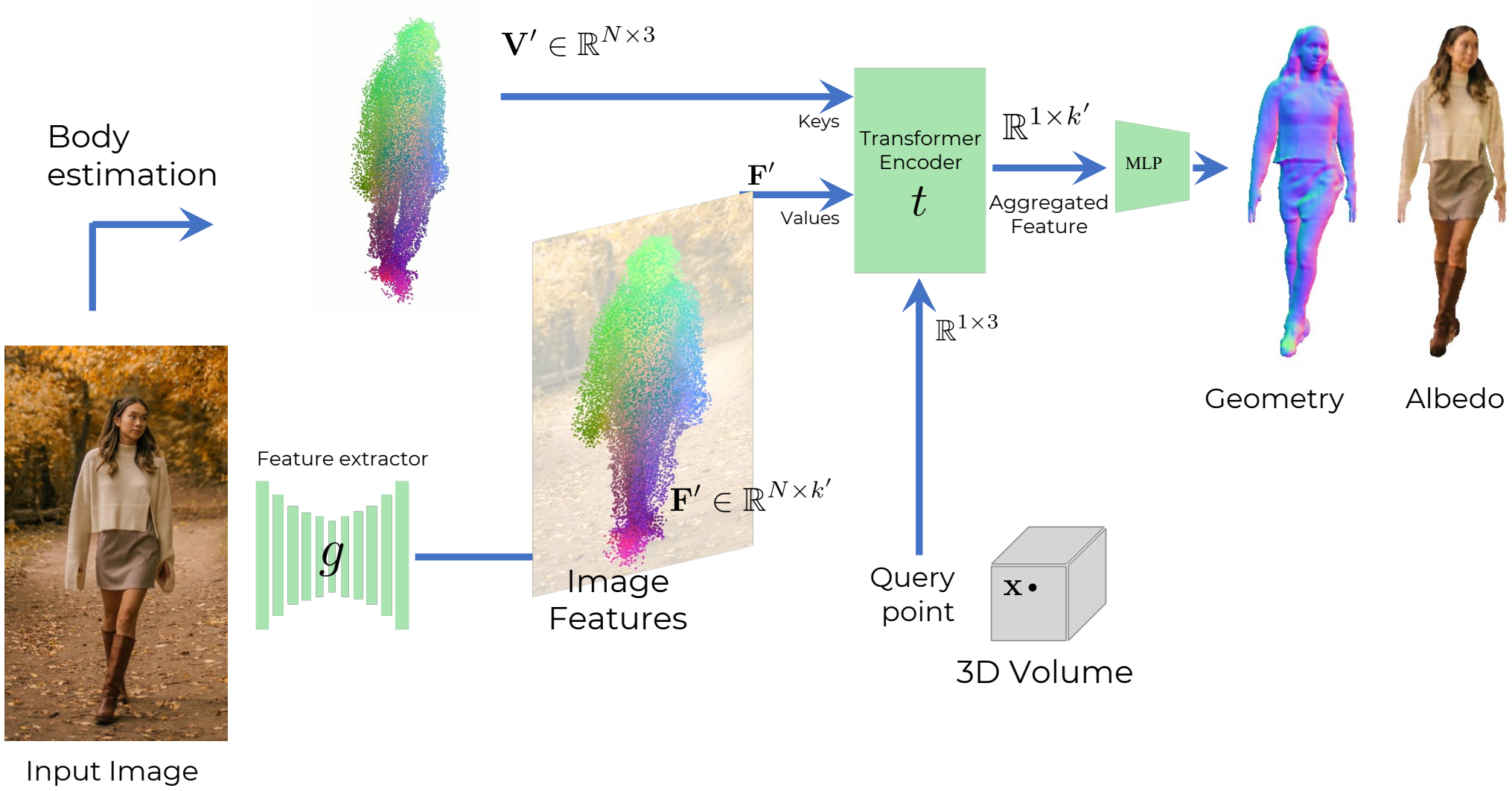
Method: Structured 3D Features



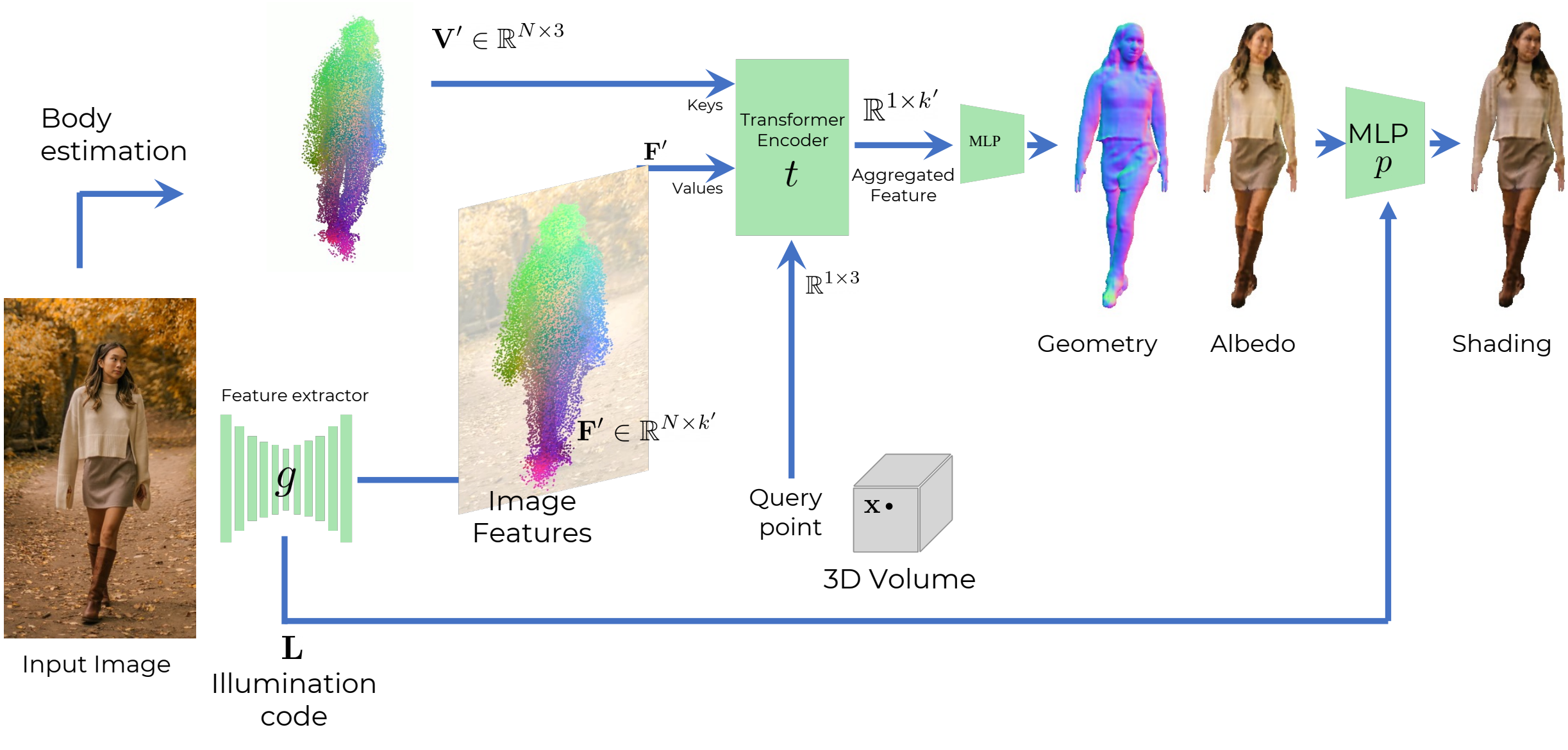
Method: Structured 3D Features



Method: Structured 3D Features



Method: Structured 3D Features



Results: 3D Human Reconstruction

S3F (OURS)

S3F (OURS)

Applications

Relighting

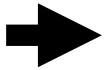
Re-posing

Cloth texture transfer

Input image

Cloth texture transfer

Input image

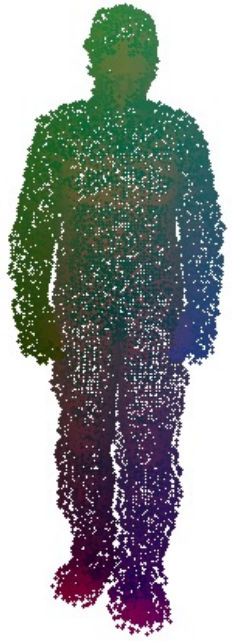


S3Fs

Cloth texture transfer

Input image

S3Fs



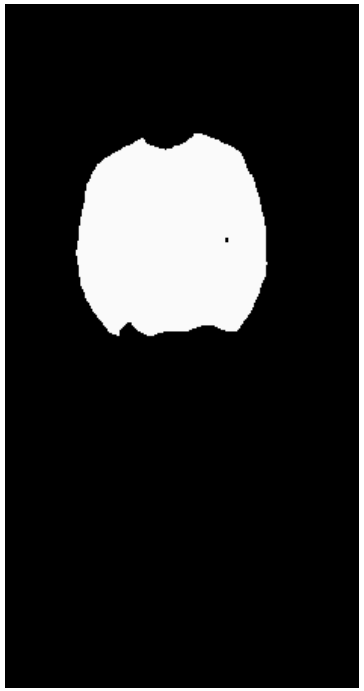
Source S3Fs

Source clothing

Cloth texture transfer

Input image

S3Fs



Target cloth mask

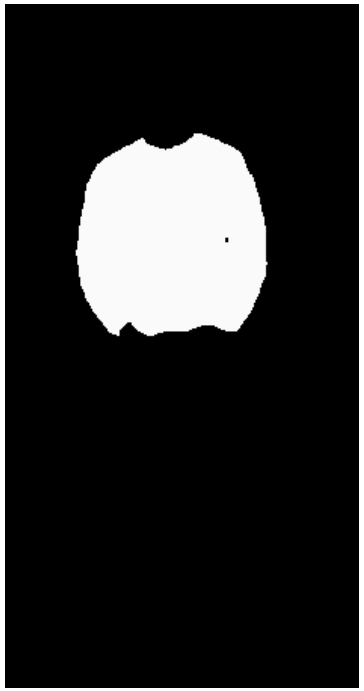
Source S3Fs

Source clothing

Cloth texture transfer

Input image

S3Fs



Target cloth mask

Edited S3Fs

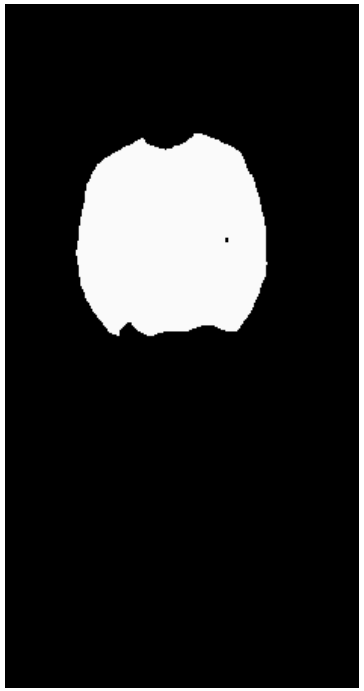
Source S3Fs

Source clothing

Cloth texture transfer

Input image

S3Fs



Target cloth mask

Edited Reconstruction

Source S3Fs

Source clothing

Cloth texture transfer

Source upper-body clothing

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