Expression Robust 3D Face Landmarking Using Thresholded Surface Normals

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Highlights

- A novel 3D facial landmarking algorithm based on thresholded surface normals maps is proposed.
- The potential of using surface normals maps for feature detection is explored.
- Using thresholded surface normals can help facial roll and yaw rotation calibration.
- Seven facial landmarks (the tip, root, subnasal, alar grooves and eye corners) are robustly localised on the well-aligned 3D face.
- Results on the Bosphorus, FRGC and BU-3DFE databases show that the detected landmarks possess high within-class consistency and accuracy under different expressions.