







## 5. Conclusion

This paper presents head pose estimation from a single second face image using a 3D face model morphed from a reference 3D face model of somebody of identical origin and sex as a result of the question subject. Head pose angles are estimated by minimizing the difference between the choices on the question face image and conjointly the corresponding points on the 3D face model. Once multiple footage of the question subject are on the marketplace for employment, the reference model are going to be morphed for added correct model fitting. The advanced 3D face model becomes further specific to the question face image in terms of depth errors at the feature points. The planned morphing technique is computationally economical since the 3D depth is adjusted by multiplying the depth at each feature purpose by a scalar depth parameter. Experiments with the USF Human-ID data counsel that morphed 3D face model decreases depth errors equally as feature difference. Sex and origin variations between check subject and 3D model have an impression on the performance of head pose estimation.

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