

– Master-/Bachelor Thesis – Face Image Frontal Pose Quality Assessment

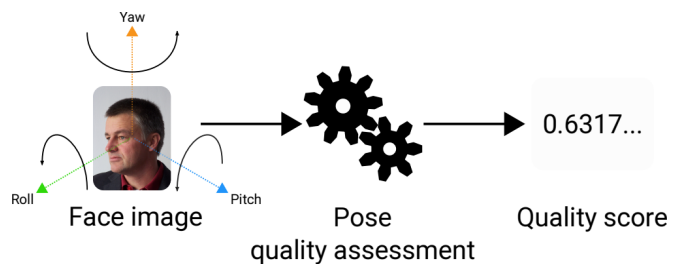
da/sec



da/sec is the biometrics and internet security research group and is affiliated with University of Applied Sciences Darmstadt and the National Research Center for Applied Cybersecurity - ATHENE. The group is led by Prof. Dr. Christoph Busch. The focus of the group is on highly innovative and applied IT security research in the special fields of biometrics, internet security and digital forensics. Read more on www.dasec.h-da.de.

Motivation & Goal

The performance of face recognition systems can be limited by the quality of the used images, and the head pose is one factor that can impact face image “quality” in this context. Pose can be measured in the form of three rotation angles, yaw, pitch, and roll, whereby roll rotation can be corrected through image transformation. Usually a frontal pose is preferred for face recognition purposes, but how should deviations from “frontalness” be mapped to a scalar quality score?



Tasks

- Repurpose existing pose angle estimation models to assess the image quality for face recognition with respect to “frontalness”.
- Alternatively, train a new quality assessment model.
- Evaluate the performance of the new quality assessment approach against existing face image quality assessment methods.

Start / Period

By now / by appointment

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