The paper titled "Analyzing Biases in AU Activation Estimation Toward Fairer Facial Expression Recognition" by Miguel Monares, Yuan Tang, Ritik Raina, and Virginia R. de Sa[1] focuses on the biases present in facial expression recognition models. These models play a crucial role in various applications, including emotion detection and human-computer interaction. However, they are often subject to different biases. This study specifically explores potential racial biases in facial expression analysis using synthetically generated faces[1].

The researchers investigate disparities in the performance of an action unit estimation network across different skin tones. They highlight the presence of skin color biases in an action unit estimation network and demonstrate the impact and importance of dataset diversity and variety in achieving robust models[1].

Furthermore, the study shows that these biases vary across different action units and skin tones, and these model biases interact with the biases caused by dataset differences. This work is an important step towards understanding the basis of these combined biases and removing them from facial expression models[1].

Source: Conversation with Copilot, 5/24/2024

(1) Analyzing Biases in AU Activation Estimation Toward Fairer Facial .... https://www.kdd.org/kdd2023/wp-content/uploads/2023/08/monares2023analyzing.pdf.

(2) KDD '23: Proceedings of the 29th ACM SIGKDD Conference on Knowledge .... https://www.kdd.org/kdd2023/wp-content/uploads/2023/08/toc.html.

(3) Research Track Papers - KDD 2023. https://www.kdd.org/kdd2023/research-track-papers/index.html.

(4) Sensor Placement for Learning on Networks - kdd.org. https://www.kdd.org/kdd2023/wp-content/uploads/2023/08/burudgunte2023sensor.pdf.

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