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, presented at the KDD '23 conference, explores potential racial biases in facial expression analysis using synthetically generated faces[2]. The authors specifically investigate disparities in the performance of an action unit estimation network across different skin tones[2].

The research highlights the presence of skin color biases in an action unit estimation network and demonstrates the impact and importance of dataset diversity and variety in achieving robust models[2]. Furthermore, the authors show that these biases vary across different action units and skin tones and these model biases interact with the biases caused by dataset differences[2].

This work is an important step towards the eventual goal of understanding the basis of these combined biases and removing them from facial expression models[2]. The authors believe that their findings will contribute significantly to the field of affective computing and computer vision[2].

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) AI PDF Summarizer – Summarize Long PDFs for Free - Smallpdf. https://smallpdf.com/ai-pdf.

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