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Face Landmark Detection

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Abstract: Based on birthplace or nation of origin, it is possible to distinguish the variations in facial form. This initiative makes an effort to address the issue of categorising people's ethnicity based on their visual traits. The five main ethnic groups that this project can identify are White, Black, Asian, Indian, and Others. To accomplish this, a CNN model is first trained using a set of face photos that include the x- and ycoordinates of important facial landmarks to predict these coordinates in a given image.

Keywords: CNN, Deep Learning.

REFERENCES

- [1] Darabant, A.S.; Borza, D.; Danescu, R. Recognizing Human Races through Machine Learning a Multi-Network, Multi-Features Study. Mathematics 2021, 9, 195.
- [2] Reid, D.A.; Nixon, M.S.; Stevenage, S.V. Towards large-scale face-based race classification on spark framework. IEEE Trans. Pattern Anal. Mach. Intell. 2019, 78, 26729–26746.
- [3] Khan, K.; Khan, R.U.; Ali, J.; Uddin, I.; Khan, S.; Roh, B.H. Race Classification Using Deep Learning. Comput. Mater. Contin. 2021,68, 3483–3498.
- [4] Hamdi, S.; Moussaoui, A. Comparative study between machine and deep learning methods for age, gender and ethnicity identification. In Proceedings of the 2020 4th International Symposium on Informatics and its Applications (ISIA), M'sila, Algeria, 15–16 December 2020;
- [5] Han, H.; Jain, A.K.; Wang, F.; Shan, S.; Chen, X. Heterogeneous Face Attribute Estimation: A Deep Multi-Task Learning ApproachIEEE Trans. Pattern Anal. Mach. Intell. 2018, 40, 2597–2609.
- [6] Das, A.; Dantcheva, A.; Brémond, F. Mitigating Bias in Gender, Age and Ethnicity Classification: A Multi-task Convolution Neural Network Approach. In Proceedings of the ECCV Workshops, Munich, Germany, 8–14 September 2018.

