

Tesi

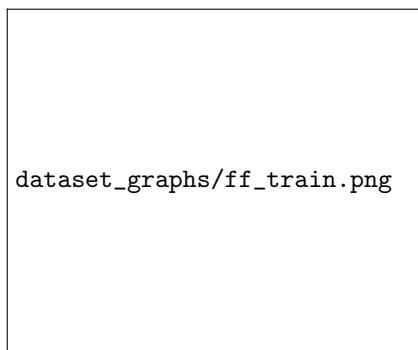
ANTONIO SESSA

September 2025

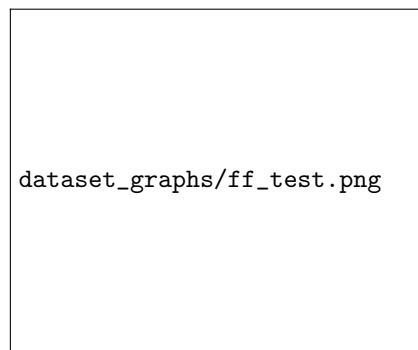
## 1 Datasets Review

### 1.1 FairFace

[1]



(a) Train Set Distribution



(b) Test Set Distribution

Figure 1: FairFace Dataset Distribution

### 1.2 UTKFace

[2]

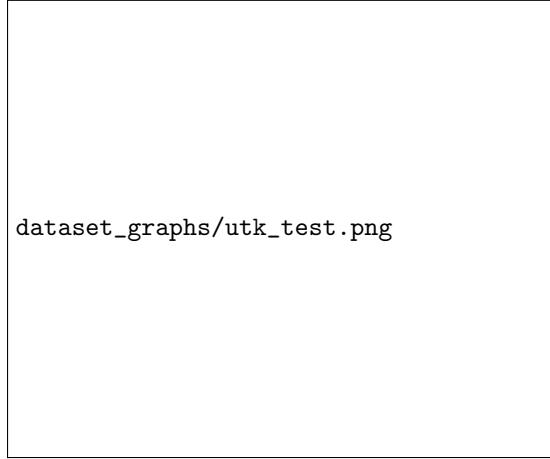


Figure 2: UTKFace Dataset Distribution (Test Set)

### 1.3 Lagenda

[3]

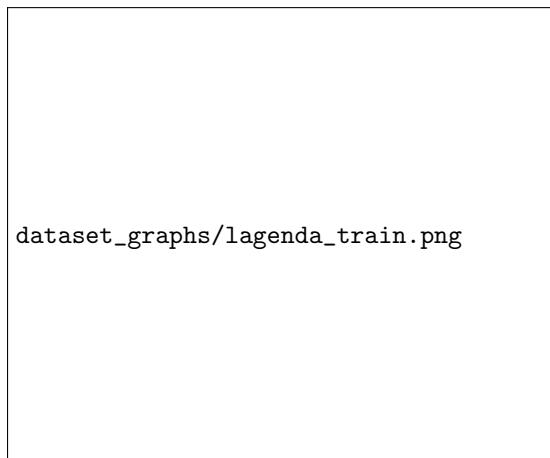
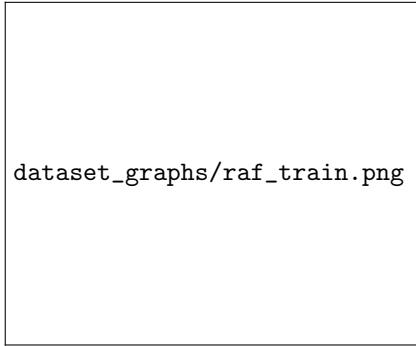


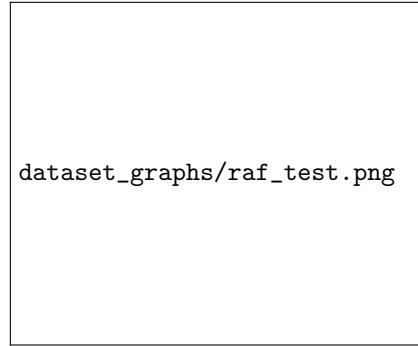
Figure 3: UTKFace Dataset Distribution (Test Set)

### 1.4 RAF-DB

[4]



(a) Train Set Distribution

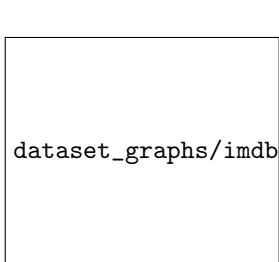


(b) Test Set Distribution

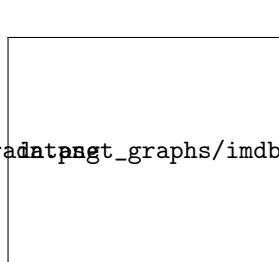
Figure 4: RAF-DB Dataset Distribution

### 1.5 IMDB-Clean

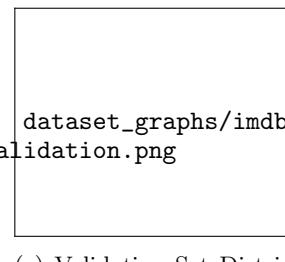
[5]



(a) Train Set Distribution



(b) Test Set Distribution

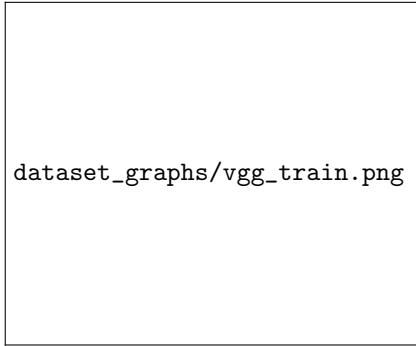


(c) Validation Set Distribution

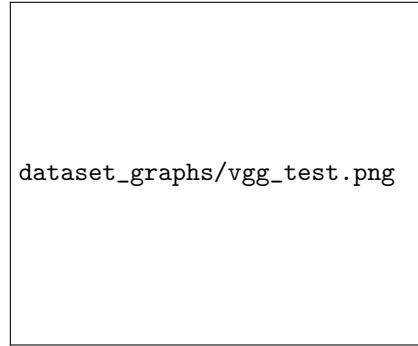
Figure 5: IMDB-Clean Dataset Distribution

### 1.6 VggFace2

[6]



(a) Train Set Distribution



(b) Test Set Distribution

Figure 6: VggFace2 Dataset Distribution

## References

- [1] Kimmo Kärkkäinen and Jungseock Joo. “FairFace: Face Attribute Dataset for Balanced Race, Gender, and Age”. In: *CoRR* abs/1908.04913 (2019). arXiv: 1908.04913. URL: <http://arxiv.org/abs/1908.04913>.
- [2] Zhifei Zhang, Yang Song, and Hairong Qi. *Age Progression/Regression by Conditional Adversarial Autoencoder*. 2017. arXiv: 1702.08423 [cs.CV]. URL: <https://arxiv.org/abs/1702.08423>.
- [3] Maksim Kuprashevich and Irina Tolstykh. “MiVOLO: Multi-input Transformer for Age and Gender Estimation”. In: (2023). eprint: [arXiv:2307.04616](https://arxiv.org/abs/2307.04616).
- [4] Shan Li, Weihong Deng, and Junping Du. “Reliable Crowdsourcing and Deep Locality-Preserving Learning for Expression Recognition in the Wild”. In: *2017 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2017), pp. 2584–2593. URL: <https://api.semanticscholar.org/CorpusID:11413183>.
- [5] Yiming Lin et al. “FP-Age: Leveraging Face Parsing Attention for Facial Age Estimation in the Wild”. In: *arXiv* (2021). eprint: [2106.11145](https://arxiv.org/abs/2106.11145) (cs.CV).
- [6] Qiong Cao et al. *VGGFace2: A dataset for recognising faces across pose and age*. 2018. arXiv: 1710.08092 [cs.CV]. URL: <https://arxiv.org/abs/1710.08092>.