Estimatión da idade cronolóxica en OPGs

This repository contains the source code of the paper"Deep Neural Networks for Chronological Age Estimation From OPG Images". In this paper, two Deep Neural Networks (DANet and DASNet) were proposed as a way to estimate the chronological age of a subject from a panoramic dental image.

The source code is composed of the network architectures, the data augmentation approach and the scripts needed to train both networks.

Requeriments

- Python 3
- scikit-image
- scikit-learn
- PIL
- tensorflow (>2.0.0)

Usage

To train the networks with your own data, you should implement the filedata.py, following the instructions in the comments. The images must be rescaled to 128x256 before arranged in a numpy array.

After that, you should be able to run the training scripts through

```
$ python3 train_danet.py
$ python3 train_dasnet.py
```

The performance of the methods is evaluated on the test set, and the performance metrics are printed.

Troubleshooting

If you find some bugs in the code, please fill an issuehere. Feel free to contact me on nicolas.vila@usc.es with any other suggestion or doubt

Citation:

If you use this code, please cite the paper:

```
@article{vilablanco2020,
  author={N. {Vila-Blanco} and M. J. {Carreira} and P. {Varas-Quintana} and C. {Balsa-Castro} and I. {Tomás}},
  journal={IEEE Transactions on Medical Imaging},
  title={Deep Neural Networks for Chronological Age Estimation From OPG Images},
  year={2020},
  volume={39},
  number={7},
  pages={2374-2384},}
```

INFORMACIÓN

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Repositorio Gitlab

Descargar de Gitlab