1. Bài báo khoa học tiếng Anh

[1] Boutros, Fadi et al. "Elasticface: Elastic margin loss for deep face recognition". In: Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition. 2022, pp. 1578–1587.

[2] Bromley, Jane et al. "Signature verification using a" siamese" time delay neural network". In: Advances in neural information processing systems 6 (1993).

[3] Chen, Tianqi et al. "Mxnet: A flexible and efficient machine learning library for heterogeneous distributed systems". In: arXiv preprint arXiv:1512.01274 (2015).

[4] Cubuk, Ekin Dogus et al. "RandAugment: Practical Automated Data Augmentation with a Reduced Search Space". In: Advances in Neural Information Processing Systems. Ed. by Larochelle, H. et al. Vol. 33. Curran Associates, Inc., 2020, pp. 18613–18624. url: https : / / proceedings.neurips.cc/paper/2020/file/d85b63ef0ccb114d0a3bb7b7d8 Paper.pdf.

[5] Deng, Jia et al. "Imagenet: A large-scale hierarchical image database". In: 2009 IEEE conference on computer vision and pattern recognition. Ieee. 2009, pp. 248–255.

[6] Deng, Jiankang et al. "Arcface: Additive angular margin loss for deep face recognition". In: Proceedings of the IEEE/CVF conference on computer vision and pattern recognition. 2019, pp. 4690–4699.

[7] Dosovitskiy, Alexey et al. "An image is worth 16x16 words: Transformers for image recognition at scale". In: arXiv preprint arXiv:2010.11929 (2020).

[8] Dubey, Abhimanyu et al. "Pairwise confusion for fine-grained visual classification". In: Proceedings of the European conference on computer vision (ECCV). 2018, pp. 70–86.

[9] Fusek, R. "Pupil localization using geodesic distance". In: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 11241 LNCS (2018), pp. 433–444. doi: 10.1007/978-3-030-03801-4_38.

[10] Han, Dongyoon, Kim, Jiwhan, and Kim, Junmo. "Deep Pyramidal Residual Networks". In: 2017 IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (2017), pp. 6307–6315.

[11] He, Kaiming et al. "Deep Residual Learning for Image Recognition". In: 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (2016), pp. 770–778.

[12] Henkel, Christof. "Efficient large-scale image retrieval with deep feature orthogonality and Hybrid-Swin-Transformers". In: arXiv preprint arXiv:2110.03786 (2021).

[13] Hohenwarter, Markus and Hohenwarter, Markus. "GeoGebra". In: Available on-line at http://www. geogebra. org/cms/en (2002).

[14] Huang, Gary B. et al. Labeled Faces in the Wild: A Database for Studying Face Recognition in Unconstrained Environments. Tech. rep. 07-49. University of Massachusetts, Amherst, Oct. 2007.

[15] Learned-Miller, Gary B. Huang Erik. Labeled Faces in the Wild: Updates and New Reporting Procedures. Tech. rep. UM-CS-2014-003. University of Massachusetts, Amherst, May 2014.

[16] Lin, Tsung-Yi et al. "Focal loss for dense object detection". In: Proceedings of the IEEE international conference on computer vision. 2017, pp. 2980–2988.

[17] Liu, Weiyang et al. "Sphereface: Deep hypersphere embedding for face recognition". In: Proceedings of the IEEE conference on computer vision and pattern recognition. 2017, pp. 212–220.

[18] Liu, Ziwei et al. "Deep Learning Face Attributes in the Wild". In: Proceedings of International Conference on Computer Vision (ICCV). Dec. 2015.

[19] Mare, Tudor et al. "A realistic approach to generate masked faces applied on two novel masked face recognition data sets". In: arXiv preprint arXiv:2109.01745 (2021).

[20] McFee, Brian et al. "librosa: Audio and music signal analysis in python". In: Proceedings of the 14th python in science conference. Vol. 8. 2015, pp. 18–25.

[21] Nguyen, Quang-Thuc et al. "HCMUS at MediaEval 2020: Image-Text Fusion for Automatic News-Images Re-Matching". In: MediaEval. 2020.

[22] Pereyra, Gabriel et al. "Regularizing neural networks by penalizing confident output distributions". In: arXiv preprint arXiv:1701.06548 (2017).

[23] Rahman, Md. Moklesur et al. "EyeNet: An Improved Eye States Classification System using Convolutional Neural Network". In: 2020 22nd International Conference on Advanced Communication Technology (ICACT) (2020), pp. 84–90.

[24] Sandler, Mark et al. "Mobilenetv2: Inverted residuals and linear bottlenecks". In: Proceedings of the IEEE conference on computer vision and pattern recognition. 2018, pp. 4510–4520.

[25] Schroff, Florian, Kalenichenko, Dmitry, and Philbin, James. "Facenet: A unified embedding for face recognition and clustering". In: Proceedings of the IEEE conference on computer vision and pattern recognition. 2015, pp. 815–823.

[26] Song, Fengyi et al. "Eyes closeness detection from still images with multi-scale histograms of principal oriented gradients". In: Pattern Recognition 47.9 (2014), pp. 2825–2838. issn: 0031-3203. doi: https://doi.org/10.1016/j.patcog.2014.03.024. url: https://www.sciencedirect.com/science/article/pii/S0031320314001228.

[27] Tan, Mingxing and Le, Quoc. "Efficientnet: Rethinking model scaling for convolutional neural networks". In: International conference on machine learning. PMLR. 2019, pp. 6105–6114.

[28] Tan, Mingxing and Le, Quoc. "Efficientnetv2: Smaller models and faster training". In: International Conference on Machine Learning. PMLR. 2021, pp. 10096–10106.

[29] Wang, Feng et al. "Normface: L2 hypersphere embedding for face verification". In: Proceedings of the 25th ACM international conference on Multimedia. 2017, pp. 1041–1049.

[30] Wang, Hao et al. "Cosface: Large margin cosine loss for deep face recognition". In: Proceedings of the IEEE conference on computer vision and pattern recognition. 2018, pp. 5265–5274.

[31] Weyand, Tobias et al. "Google landmarks dataset v2-a large-scale benchmark for instance-level recognition and retrieval". In: Proceedings of the IEEE/CVF conference on computer vision and pattern recognition. 2020, pp. 2575–2584.

[32] Wold, Svante, Esbensen, Kim, and Geladi, Paul. "Principal component analysis". In: Chemometrics and intelligent laboratory systems 2.1-3 (1987), pp. 37–52.

[33] Yi, Dong et al. "Learning Face Representation from Scratch". In: ArXiv abs/1411.7923 (2014).

[34] Zhang, Kaipeng et al. "Joint Face Detection and Alignment using Multi-task Cascaded Convolutional Networks". In: CoRR abs/1604.02878 (2016). arXiv: 1604.02878. url: http://arxiv.org/abs/1604.02878.

[35] Zhang, Xucong, Sugano, Yusuke, and Bulling, Andreas. "Evaluation of Appearance-Based Methods and Implications for Gaze-Based Applications". In: CoRR abs/1901.10906 (2019). arXiv: 1901 . 10906. url: http://arxiv.org/abs/1901.10906.

[36] Zhang, Xucong et al. "Appearance-Based Gaze Estimation in the Wild". In: CoRR abs/1504.02863 (2015). arXiv: 1504.02863. url: http://arxiv.org/abs/1504.02863.

[37] Zhang, Xucong et al. "It's Written All Over Your Face: Full-Face Appearance-Based Gaze Estimation". In: CoRR abs/1611.08860 (2016). arXiv: 1611.08860. url: http://arxiv.org/abs/1611.08860.

[38] Zhang, Xucong et al. "MPIIGaze: Real-World Dataset and Deep Appearance-Based Gaze Estimation". In: CoRR abs/1711.09017 (2017). arXiv: 1711.09017. url: http://arxiv.org/abs/1711.09017.

[39] Zhang, Yuanhan et al. "CelebA-Spoof: Large-Scale Face Anti-Spoofing Dataset with Rich Annotations". In: European Conference on Computer Vision (ECCV). 2020.

2. Tài liệu tham khảo trên mạng

- https://en.wikipedia.org/wiki/Face_ID
- https://www.pocket-lint.com/phones/news/apple/142207-what-is-apple-face-id-and-how-does-it-work
- https://www.apple.com/pt/newsroom/2021/04/ios-14-5-offers-unlock-iphone-with-apple-watch-diverse-siri-voices-and-more
- https://support.apple.com/en-us/HT208108
- https://www.sellcell.com/blog/apple-2021-new-products-survey
- https://www.sellcell.com/blog/report-79-of-iphone-users-want-touch-id-to-make-a-comeback-in-the-future-iphones
- https://en.wikipedia.org/wiki/Pixel_4
- https://www.androidcentral.com/pixel-4-face-unlock-actually-work
- https://www.androidcentral.com/pixel-4-face-unlock-vs-apples-face-id
- https://support.google.com/pixelphone/answer/9517039
- https://9to5google.com/2022/04/27/pixel-6-pro-face-unlock-works
- https://www.ibm.com/cloud/learn/neural-networks
- https://www.tensorflow.org/
- https://pytorch.org/
- https://www.tensorflow.org/lite
- https://www.tensorflow.org/lite/android
- https://colab.research.google.com/
- https://developer.android.com/studio/intro
- https://viblo.asia/p/tong-quan-ve-face-anti-spoofing-bai-toan-chong-gia-mao-khuon-mat-1Je5E6oYKnL

3. Source code đã sử dụng hoặc tham khảo.

- https://github.com/tensorflow/examples/tree/master/lite/examples/image_classification/android
- https://github.com/vcvycy/MTCNN4Android