

Daftar Pustaka

- Abadi, M., Agarwal, A., Barham, P., Brevdo, E., Chen, Z., Citro, C., Corrado, G.S., Davis, A., Dean, J., Devin, M., Ghemawat, S., Goodfellow, I., Harp, A., Irving, G., Isard, M., Jia, Y., Jozefowicz, R., Kaiser, L., Kudlur, M., Levenberg, J., Mane, D., Monga, R., Moore, S., Murray, D., Olah, C., Schuster, M., Shlens, J., Steiner, B., Sutskever, I., Talwar, K., Tucker, P., Vanhoucke, V., Vasudevan, V., Viegas, F., Vinyals, O., Warden, P., Wattenberg, M., Wicke, M., Yu, Y., Zheng, X., 2016. TensorFlow: Large-Scale Machine Learning on Heterogeneous Distributed Systems.
- Ajit, A., Acharya, K., Samanta, A., 2020. A Review of Convolutional Neural Networks, in: 2020 International Conference on Emerging Trends in Information Technology and Engineering (Ic-ETITE). IEEE, pp. 1–5. <https://doi.org/10.1109/ic-ETITE47903.2020.049>
- Alzubaidi, L., Zhang, J., Humaidi, A.J., Al-Dujaili, A., Duan, Y., Al-Shamma, O., Santamaría, J., Fadhel, M.A., Al-Amidie, M., Farhan, L., 2021. Review of deep learning: concepts, CNN architectures, challenges, applications, future directions. J Big Data 8, 53. <https://doi.org/10.1186/s40537-021-00444-8>
- Anthony, P., Ay, B., Aydin, G., 2021. A Review of Face Anti-spoofing Methods for Face Recognition Systems, in: 2021 International Conference on INnovations in Intelligent SysTems and Applications (INISTA). IEEE, pp. 1–9. <https://doi.org/10.1109/INISTA52262.2021.9548404>
- Bansal, A., Castillo, C., Ranjan, R., Chellappa, R., 2017. The Do's and Don'ts for CNN-Based Face Verification, in: 2017 IEEE International Conference on Computer Vision Workshops (ICCVW). IEEE, pp. 2545–2554. <https://doi.org/10.1109/ICCVW.2017.299>

- Boutros, F., Damer, N., Fang, M., Kirchbuchner, F., Kuijper, A., 2021. MixFaceNets: Extremely Efficient Face Recognition Networks, in: 2021 IEEE International Joint Conference on Biometrics (IJCB). IEEE, pp. 1–8. <https://doi.org/10.1109/IJCB52358.2021.9484374>
- Chen, S., Liu, Y., Gao, X., Han, Z., 2018. MobileFaceNets: Efficient CNNs for Accurate Real-Time Face Verification on Mobile Devices.
- Dalianis, H., 2018. Evaluation Metrics and Evaluation, in: Clinical Text Mining. Springer International Publishing, Cham, pp. 45–53. https://doi.org/10.1007/978-3-319-78503-5_6
- Das, A., Sengupta, A., Saqib, M., Pal, U., Blumenstein, M., 2018. More Realistic and Efficient Face-Based Mobile Authentication using CNNs, in: 2018 International Joint Conference on Neural Networks (IJCNN). IEEE, pp. 1–8. <https://doi.org/10.1109/IJCNN.2018.8489070>
- Deng, J., Guo, J., Yang, J., Xue, N., Cotsia, I., Zafeiriou, S.P., 2021. ArcFace: Additive Angular Margin Loss for Deep Face Recognition. IEEE Trans Pattern Anal Mach Intell 1–1. <https://doi.org/10.1109/TPAMI.2021.3087709>
- El-Abed, M., Giot, R., Hemery, B., Rosenberger, C., Schwartzmann, J.-J., Schwartzmann, J.-J., 2014. Towards the Security Evaluation of Biometric Authentication Systems.
- Hadiprakoso, R.B., Setiawan, H., Girinoto, 2020. Face Anti-Spoofing Using CNN Classifier & Face liveness Detection, in: 2020 3rd International Conference on Information and Communications Technology (ICOIACT). IEEE, pp. 143–147. <https://doi.org/10.1109/ICOIACT50329.2020.9331977>
- Howard, A., Sandler, M., Chu, G., Chen, L.-C., Chen, B., Tan, M., Wang, W., Zhu, Y., Pang, R., Vasudevan, V., Le, Q. V., Adam, H., 2019. Searching for MobileNetV3. Computing Research Repository.

- Hubel, D.H., Wiesel, T.N., 1962. Receptive fields, binocular interaction and functional architecture in the cat's visual cortex. *J Physiol* 160, 106–154. <https://doi.org/10.1113/jphysiol.1962.sp006837>
- Khabarlak, K., 2022. Post-Train Adaptive MobileNet for Fast Anti-Spoofing, in: 3rd International Workshop On Intelligent Information Technologies & Systems of Information Security. pp. 44–53.
- Khan, S., Rahmani, H., Shah, S.A.A., Bennamoun, M., 2018. A Guide to Convolutional Neural Networks for Computer Vision. *Synthesis Lectures on Computer Vision* 8, 1–207. <https://doi.org/10.2200/S00822ED1V01Y201712COV015>
- Kortli, Y., Jridi, M., Al Falou, A., Atri, M., 2020. Face Recognition Systems: A Survey. *Sensors* 20, 342. <https://doi.org/10.3390/s20020342>
- Li, X., Wang, F., Hu, Q., Leng, C., 2019. AirFace: Lightweight and Efficient Model for Face Recognition.
- Manpreet Bagga, Baljit Singh, 2016. Spoofing detection in face recognition: A review. 2016 3rd International Conference on Computing for Sustainable Global Development (INDIACom).
- Ogden, S.S., Guo, T., 2019. Characterizing the Deep Neural Networks Inference Performance of Mobile Applications.
- Prakash, R.M., Thenmozhi, N., Gayathri, M., 2019. Face Recognition with Convolutional Neural Network and Transfer Learning, in: 2019 International Conference on Smart Systems and Inventive Technology (ICSSIT). IEEE, pp. 861–864. <https://doi.org/10.1109/ICSSIT46314.2019.8987899>
- Salvi, M., Acharya, U.R., Molinari, F., Meiburger, K.M., 2021. The impact of pre- and post-image processing techniques on deep learning frameworks: A

comprehensive review for digital pathology image analysis. *Comput Biol Med.* <https://doi.org/10.1016/j.compbiomed.2020.104129>

Shorten, C., Khoshgoftaar, T.M., 2019. A survey on Image Data Augmentation for Deep Learning. *J Big Data* 6, 60. <https://doi.org/10.1186/s40537-019-0197-0>

Taylor, P., 2022. Smartphone mobile network subscriptions worldwide 2016-2028. Statista. URL <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/> (accessed 4.20.23).

Xiao, J., Weiwei, G., 2019. Face recognition algorithm based on Prewitt and convolutional neural network, in: 2019 3rd International Conference on Electronic Information Technology and Computer Engineering (EITCE). IEEE, pp. 2007–2009. <https://doi.org/10.1109/EITCE47263.2019.9095075>

Yamashita, R., Nishio, M., Do, R.K.G., Togashi, K., 2018. Convolutional neural networks: an overview and application in radiology. *Insights Imaging* 9, 611–629. <https://doi.org/10.1007/s13244-018-0639-9>

Ying, X., Li, X., Chuah, M.C., 2018. LiveFace: A Multi-task CNN for Fast Face-Authentication, in: 2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA). IEEE, pp. 955–960. <https://doi.org/10.1109/ICMLA.2018.00155>

Zhang, H., Qu, Z., Yuan, L., Li, G., 2017. A face recognition method based on LBP feature for CNN, in: 2017 IEEE 2nd Advanced Information Technology, Electronic and Automation Control Conference (IAEAC). IEEE, pp. 544–547. <https://doi.org/10.1109/IAEAC.2017.8054074>

Zhang, K., Zhang, Z., Li, Z., Qiao, Y., 2016. Joint Face Detection and Alignment using Multi-task Cascaded Convolutional Networks. <https://doi.org/10.1109/LSP.2016.2603342>

Zhang, S., Liu, A., Wan, J., Liang, Y., Guo, G., Escalera, S., Escalante, H.J., Li, S.Z., 2019. CASIA-SURF: A Large-scale Multi-modal Benchmark for Face Anti-spoofing.

Zulfiqar, M., Syed, F., Khan, M.J., Khurshid, K., 2019. Deep Face Recognition for Biometric Authentication, in: 2019 International Conference on Electrical, Communication, and Computer Engineering (ICECCE). IEEE, pp. 1–6. <https://doi.org/10.1109/ICECCE47252.2019.8940725>