

## DAFTAR PUSTAKA

- [1] Polri, “Perpol nomor 1 tahun 2022 tentang perizinan, pengawasan dan pengendalian senjata api standar polri, senjata api non organik tni dan peralatan keamanan yang digolongkan senjata api,” 2022, diundangkan pada tanggal 3 Februari 2022. [Online]. Available: <https://peraturan.bpk.go.id/Home/Details/225203/perka-polri-no-1-tahun-2022>
- [2] H. I. C. R. Center. Gun threats and self-defense gun use. Accessed: May 9, 2023. [Online]. Available: <https://www.hsph.harvard.edu/hicrc/firearms-research/gun-threats-and-self-defense-gun-use-2/>
- [3] A. International. Gun violence. Accessed: May 9, 2023. [Online]. Available: <https://www.amnesty.org/en/what-we-do/arms-control/gun-violence/>
- [4] M. S. Tracker. Mass shooting. Accessed: May 9, 2023. [Online]. Available: <https://massshootingtracker.site/about/>
- [5] Z. Zou, K. Chen, Z. Shi, Y. Guo, and J. Ye, “Object detection in 20 years: A survey,” 2023.
- [6] M. Fernández-Carrobles, O. Deniz, and F. Maroto, *Gun and Knife Detection Based on Faster R-CNN for Video Surveillance*. Springer International Publishing, 09 2019, pp. 441–452.
- [7] J. Rose, T. Bourlai, and J. A. Loudermilk, “Assessment of data augmentation techniques for firearm detection in surveillance videos,” in *2020 IEEE International Conference on Big Data (Big Data)*, 2020, pp. 1838–1846.
- [8] N. Hnoohom, P. Chotivatunyu, N. Maitrichit, V. Sornlertlamvanich, S. Mekruksavanich, and A. Jitpattanakul, “Weapon detection using faster r-cnn inception-v2 for a cctv surveillance system,” in *2021 25th International Computer Science and Engineering Conference (ICSEC)*, 2021, pp. 400–405.
- [9] N. U. Haq, T. S. S. Hashmi, M. M. Fraz, and M. Shahzad, “Rotation aware object detection model with applications to weapons spotting in surveillance videos,” in *2021 International Conference on Digital Futures and Transformative Technologies (ICoDT2)*, 2021, pp. 1–6.
- [10] D. Qi, W. Tan, Z. Liu, Q. Yao, and J. Liu, “A dataset and system for real-time gun detection in surveillance video using deep learning,” 2021.
- [11] T. S. S. Hashmi, N. U. Haq, M. M. Fraz, and M. Shahzad, “Application of deep learning for weapons detection in surveillance videos,” in *2021 International Conference on Digital Futures and Transformative Technologies (ICoDT2)*, 2021, pp. 1–6.
- [12] S. Nikkath Bushra, G. Shobana, K. Uma Maheswari, and N. Subramanian, “Smart video surveillance based weapon identification using yolov5,” in *2022 International Conference on Electronic Systems and Intelligent Computing (ICESIC)*, 2022, pp. 351–357.



- [13] M. T. Bhatti, M. G. Khan, M. Aslam, and M. J. Fiaz, "Weapon detection in real-time cctv videos using deep learning," *IEEE Access*, vol. 9, pp. 34 366–34 382, 2021.
- [14] M. A. Duran-Vega, M. Gonzalez-Mendoza, L. Chang, and C. D. Suarez-Ramirez, "Tyolov5: A temporal yolov5 detector based on quasi-recurrent neural networks for real-time handgun detection in video," 2021.
- [15] Y. Gu, X. Liao, and X. Qin, "Youtube-gdd: A challenging gun detection dataset with rich contextual information," 2022.
- [16] S. Ren, K. He, R. Girshick, and J. Sun, "Faster r-cnn: Towards real-time object detection with region proposal networks," 2016.
- [17] J. Redmon, S. K. Divvala, R. B. Girshick, and A. Farhadi, "You only look once: Unified, real-time object detection," *CoRR*, vol. abs/1506.02640, 2015. [Online]. Available: <http://arxiv.org/abs/1506.02640>
- [18] W. Liu, D. Anguelov, D. Erhan, C. Szegedy, S. E. Reed, C. Fu, and A. C. Berg, "SSD: single shot multibox detector," *CoRR*, vol. abs/1512.02325, 2015. [Online]. Available: <http://arxiv.org/abs/1512.02325>
- [19] X. Zhou, D. Wang, and P. Krähenbühl, "Objects as points," *CoRR*, vol. abs/1904.07850, 2019. [Online]. Available: <http://arxiv.org/abs/1904.07850>
- [20] N. U. Haq, T. S. S. Hashmi, M. M. Fraz, and M. Shahzad, "Rotation aware object detection model with applications to weapons spotting in surveillance videos," in *2021 International Conference on Digital Futures and Transformative Technologies (ICoDT2)*, 2021, pp. 1–6.
- [21] "Firearms," 2007. [Online]. Available: <https://www.cs.mcgill.ca/~rwest/wikispeedia/wpcd/wp/f/Firearm.htm>
- [22] KKIENERM, "Common firearms types," 2020. [Online]. Available: <https://www.unodc.org/e4j/zh/firearms/module-2/key-issues/common-firearms-types.html>
- [23] "Basic parts of firearm," 2023. [Online]. Available: [https://www.hunter-ed.com/national/studyGuide/Basic-Parts-of-a-Firearm/201099\\_92796/](https://www.hunter-ed.com/national/studyGuide/Basic-Parts-of-a-Firearm/201099_92796/)
- [24] "What is machine learning?" 2016. [Online]. Available: <https://www.ibm.com/topics/machine-learning>
- [25] L. Labs, "Clarifying ai, machine learning, deep learning, data science with venn diagrams," Jul 2020. [Online]. Available: <https://lotuslabs.medium.com/clarifying-ai-machine-learning-deep-learning-data-science-with-venn-diagrams-c94198faa063>
- [26] A. Krizhevsky, I. Sutskever, and G. E. Hinton, "Imagenet classification with deep convolutional neural networks," *Communications of the ACM*, vol. 60, no. 6, p. 84–90, May 2012.
- [27] "What are convolutional neural networks?" 2023. [Online]. Available: <https://www.ibm.com/topics/convolutional-neural-networks>



- [28] “What are convolutional neural networks? | introduction to deep learning,” 2017. [Online]. Available: <https://www.mathworks.com/videos/introduction-to-deep-learning-what-are-convolutional-neural-networks--1489512765771.html>
- [29] “Introduction to transfer learning,” Nov 2019. [Online]. Available: <https://www.geeksforgeeks.org/ml-introduction-to-transfer-learning/>
- [30] pytorch, “pytorch/pytorch: Tensors and dynamic neural networks in python with strong gpu acceleration,” Jun 2023. [Online]. Available: <https://github.com/pytorch/pytorch>
- [31] J. Deng, X. Xuan, W. Wang, Z. Li, H. Yao, and Z. Wang, “A review of research on object detection based on deep learning,” *Journal of Physics: Conference Series*, vol. 1684, p. 012028, 11 2020.
- [32] J. Redmon, “Yolo: Real-time object detection,” 2018. [Online]. Available: <https://pjreddie.com/darknet/yolo/>
- [33] R. Girshick, J. Donahue, T. Darrell, and J. Malik, “Rich feature hierarchies for accurate object detection and semantic segmentation,” 2014.
- [34] R. Girshick, “Fast r-cnn,” in *2015 IEEE International Conference on Computer Vision (ICCV)*, 2015, pp. 1440–1448.
- [35] A. K. Shetty, I. Saha, R. M. Sanghvi, S. A. Save, and Y. J. Patel, “A review: Object detection models,” in *2021 6th International Conference for Convergence in Technology (I2CT)*, 2021, pp. 1–8.
- [36] G. Jocher, “Yolov5 by ultralytics,” 2020. [Online]. Available: <https://github.com/ultralytics/yolov5>
- [37] C.-Y. Wang, A. Bochkovskiy, and H.-Y. M. Liao, “Yolov7: Trainable bag-of-freebies sets new state-of-the-art for real-time object detectors,” 2022.
- [38] G. Jocher, A. Chaurasia, and J. Qiu, “Yolo by ultralytics,” 2023. [Online]. Available: <https://github.com/ultralytics/ultralytics>
- [39] J. Terven and D. Cordova-Esparza, “A comprehensive review of yolo: From yolov1 and beyond,” 2023.
- [40] B. D. Laraswati, “Pentingnya anotasi gambar dalam machine learning,” Nov 2022. [Online]. Available: <https://blog.algorit.ma/anotasi-gambar-machine-learning/>
- [41] M. Tkachenko, M. Malyuk, A. Holmanyuk, and N. Liubimov, “Label Studio: Data labeling software,” 2020–2022, open source software available from <https://github.com/heartexlabs/label-studio>. [Online]. Available: <https://github.com/heartexlabs/label-studio>
- [42] “Mean average precision explained,” 2022. [Online]. Available: <https://www.v7labs.com/blog/mean-average-precision>



- [43] A. Rosebrock, "Intersection over union (iou) for object detection - pyimage-search," Nov 2016. [Online]. Available: <https://pyimagesearch.com/2016/11/07/intersection-over-union-iou-for-object-detection/>
- [44] WongKinYiu, "Wongkinyiu/yolov7: Implementation of paper - yolov7: Trainable bag-of-freebies sets new state-of-the-art for real-time object detectors," May 2023. [Online]. Available: <https://github.com/WongKinYiu/yolov7>
- [45] C. Li, "High quality, fast, modular reference implementation of SSD in PyTorch," <https://github.com/lufficc/SSD>, 2018.
- [46] F. Wang, "Centernet-better," <https://github.com/FateScript/CenterNet-better>, 2020.
- [47] heartexlabs, "heartexlabs/label-studio-converter: Tools for converting label studio annotations into common dataset formats," Jun 2023. [Online]. Available: <https://github.com/heartexlabs/label-studio-converter>