Reference	Name/Description	Paper Used	Recommended Dataset
[1]	Bluetooth signals from 86 smartphones for RF fingerprinting	A Database for the Radio Frequency Fingerprinting of Bluetooth Devices	Real-world Commercial Wi-Fi and Bluetooth Dataset for RF Fingerprinting [2]
[3]	WiSig dataset for Wi-Fi RF fingerprinting	WiSig: A Large-Scale Wi-Fi Signal Dataset for Receiver and Channel Agnostic RF Fingerprinting	Real-world Commercial Wi-Fi and Bluetooth Dataset for RF Fingerprinting [2]
[4]	Signals from 17 drone remote controllers for RF fingerprinting	Drone Remote Controller RF Signal Dataset	Real-world Commercial Wi-Fi and Bluetooth Dataset for RF Fingerprinting [2]
Mobile Ai Dataset	Channel Fingerprint from 40 big cities	Unknown	Sigfox and LoRaWAN Datasets for Fingerprint Localization in Large Urban and Rural Areas [5]
[6]	Datasets for RF Fingerprinting of Bit-similar USRP X310 Radios	ORACLE: Optimized Radio Classification through Convolutional Neural networks	CORES Fingerprint dataset [7]
[8]	I/Q datasets from 20 USRP X310/N210 devices	A Survey of Machine Learning-based Physical-Layer Authentication in Wireless Communications	ORACLE RF Fingerprinting Dataset [6]
[9]	ADS-B signals from 140 aircraft	Class-Incremental Learning for Wireless Device Identification in IoT	ADS-B signals records for non-cryptographic identification and incremental learning. [10]

[11]	Signals from 60 commercial LoRa devices	A Comprehensive Survey on Deep Learning-Based LoRa Radio Frequency Fingerprinting Identification	Comprehensive RF Dataset Collection and Release: A Deep Learning-Based Device Fingerprinting Use Case [12]
[8]	Signals from 4 USRP X310 devices (IEEE 802.11a/LTE/5G NR)	A Survey of Machine Learning-based Physical-Layer Authentication in Wireless Communications	ORACLE RF Fingerprinting Dataset [6]
[13]	LoRa signals from 25 Pycom devices	LoRa Device Fingerprinting in the Wild: Disclosing RF Data-Driven Fingerprint Sensitivity to Deployment Variability	Comprehensive RF Dataset Collection and Release: A Deep Learning-Based Device Fingerprinting Use Case [12]
[14]	Signals from 21 USRP N2932 devices (IEEE 802.15.4)	Performance Analysis of the IEEE 802.15.4 Protocol for Smart Environments under Jamming Attacks	None
[15]	Signals from 7 DJI M100 drones	RF Fingerprinting Unmanned Aerial Vehicles with Non-standard Transmitter Waveforms	Drone Remote Controller RF Signal Dataset [16]

[17]	DeepMIMO dataset for Massive MIMO and mmWave	DeepMIMO: A Generic Deep Learning Dataset for Millimeter Wave and Massive MIMO Applications	DeepMIMO Dataset [18]
[19]	CSI data from complex indoor environments	A Framework for CSI-Based Indoor Localization with ID Convolutional Neural Networks	UCI-CSI Dataset [20]
[21]	Generalized 5G NR dataset generator	A Generalized Channel Dataset Generator for 5G New Radio Systems Based on Raytracing	5G-NR-Dataset [22]
[23]	SimRIS Channel Simulator for RIS-aided systems	SimRIS Channel Simulator for Reconfigurable Intelligent Surface-Empowered Communication Systems	RIS Channel Collections [24]
[25]	ViWi dataset framework for vision-aided wireless	ViWi: A Deep Learning Dataset Framework for Vision-Aided Wireless Communications	ViWi Dataset [26]

[27]	Underwater acoustic channel model	Channel Modeling for Underwater Acoustic Network Simulation	Channel Modeling for Underwater Dataset [28]

Table 1: Description of Datasets

References

[1]   E. Uzundurukan, Y. Dalveren, and A. Kara, "A Database for the Radio Frequency Fingerprinting of Bluetooth Devices," *Data (Basel)*, vol. 5, no. 2, p. 55, Jun. 2020, doi: 10.3390/data5020055.

[2]   A. Jagannath, Z. Kane, and J. Jagannath, "RF Fingerprinting Needs Attention: Multi-task Approach for Real-World WiFi and Bluetooth," Sep. 2022.

[3]   S. Hanna, S. Karunaratne, and D. Cabric, "WiSig: A Large-Scale WiFi Signal Dataset for Receiver and Channel Agnostic RF Fingerprinting," *IEEE Access*, vol. 10, pp. 22808–22818, 2022, doi: 10.1109/ACCESS.2022.3154790.

[4]   M. Ezuma, F. Erden, C. Kumar Anjinappa, O. Ozdemir, and I. Guvenc, "Detection and Classification of UAVs Using RF Fingerprints in the Presence of Wi-Fi and Bluetooth Interference," *IEEE Open Journal of the Communications Society*, vol. 1, pp. 60–76, 2020, doi: 10.1109/OJCOMS.2019.2955889.

[5]   M. Aernouts, R. Berkvens, K. Van Vlaenderen, and M. Weyn, "Sigfox and LoRaWAN Datasets for Fingerprint Localization in Large Urban and Rural Areas," *Data (Basel)*, vol. 3, no. 2, p. 13, Apr. 2018, doi: 10.3390/data3020013.

[6]   K. Sankhe, M. Belgiovine, F. Zhou, S. Riyaz, S. Ioannidis, and K. Chowdhury, "ORACLE: Optimized Radio clAssification through Convolutional neuraL nEtworks," Dec. 2018.

[7]   S. Hanna, S. Karunaratne, and D. Cabric, "Open Set Wireless Transmitter Authorization: Deep Learning Approaches and Dataset Considerations," *IEEE Trans Cogn Commun Netw*, vol. 7, no. 1, pp. 59–72, Mar. 2021, doi: 10.1109/TCCN.2020.3043332.

[8]   R. Meng *et al.*, "A Survey of Machine Learning-based Physical-Layer Authentication in Wireless Communications," Nov. 2024.

[9]   Y. Liu, J. Wang, J. Li, S. Niu, and H. Song, "Class-Incremental Learning for Wireless Device Identification in IoT," *IEEE Internet Things J*, vol. 8, no. 23, pp. 17227–17235, Dec. 2021, doi: 10.1109/JIOT.2021.3078407.

[10]   Yongxin Liu and Jian Wang, "ADS-B signals records for non-cryptographic identification and incremental learning.," https://ieee-dataport.org/documents/ads-b-signals-records-non-cryptographic-identification-and-incremental-learning.

[11] A. Ahmed, B. Quoitin, A. Gros, and V. Moeyaert, "A Comprehensive Survey on Deep Learning-Based LoRa Radio Frequency Fingerprinting Identification," *Sensors*, vol. 24, no. 13, p. 4411, Jul. 2024, doi: 10.3390/s24134411.

[12] A. Elmaghbub and B. Hamdaoui, "Comprehensive RF Dataset Collection and Release: A Deep Learning-Based Device Fingerprinting Use Case," Jan. 2022.

[13] A. Elmaghbub and B. Hamdaoui, "LoRa Device Fingerprinting in the Wild: Disclosing RF Data-Driven Fingerprint Sensitivity to Deployment Variability," *IEEE Access*, vol. 9, pp. 142893–142909, 2021, doi: 10.1109/ACCESS.2021.3121606.

[14] N. López-Vilos, C. Valencia-Cordero, C. Azurdia-Meza, S. Montejo-Sánchez, and S. B. Mafra, "Performance Analysis of the IEEE 802.15.4 Protocol for Smart Environments under Jamming Attacks," *Sensors*, vol. 21, no. 12, p. 4079, Jun. 2021, doi: 10.3390/s21124079.

[15] N. Soltani, G. Reus-Muns, B. Salehi, J. Dy, S. Ioannidis, and K. Chowdhury, "RF Fingerprinting Unmanned Aerial Vehicles With Non-Standard Transmitter Waveforms," *IEEE Trans Veh Technol*, vol. 69, no. 12, pp. 15518–15531, Dec. 2020, doi: 10.1109/TVT.2020.3042128.

[16] Martins Ezuma and Fatih Erden, "Drone Remote Controller RF Signal Dataset," https://ieee-dataport.org/open-access/drone-remote-controller-rf-signal-dataset.

[17] A. Alkhateeb, "DeepMIMO: A Generic Deep Learning Dataset for Millimeter Wave and Massive MIMO Applications," Feb. 2019.

[18] Umut Demirhan and Abdelrahman Taha, "DeepMIMO Dataset," https://www.deepmimo.net/.

[19] L. Wang and S. Pasricha, "A Framework for CSI-Based Indoor Localization with ID Convolutional Neural Networks," in *2022 IEEE 12th International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, IEEE, Sep. 2022, pp. 1–8. doi: 10.1109/IPIN54987.2022.9918112.

[20] S. P. L. Wang, "UCI-CSI Dataset," https://github.com/EPIC-CSU/csi-rssi-dataset-indoor-nav.

[21] Y. Zhang, J. Sun, G. Gui, H. Gacanin, and H. Sari, "A Generalized Channel Dataset Generator for 5G New Radio Systems Based on Ray-Tracing," *IEEE Wireless Communications Letters*, vol. 10, no. 11, pp. 2402–2406, Nov. 2021, doi: 10.1109/LWC.2021.3101908.

[22] Y. Zhang, J. Sun, and G. Gui, "Generalized 5G NR dataset generator," https://github.com/CodeDwan/5G-NR-data-generato.

[23] E. Basar and I. Yildirim, "SimRIS Channel Simulator for Reconfigurable Intelligent Surface-Empowered Communication Systems," in *2020 IEEE Latin-American Conference on Communications (LATINCOM)*, IEEE, Nov. 2020, pp. 1–6. doi: 10.1109/LATINCOM50620.2020.9282349.

[24] "RIS Channel Collections," https://github.com/ken0225/RIS-Codes-Collection?tab=readme-ov-file.

[25] M. Alrabeiah, A. Hredzak, Z. Liu, and A. Alkhateeb, "ViWi: A Deep Learning Dataset Framework for Vision-Aided Wireless Communications," in *2020 IEEE 91st Vehicular Technology Conference (VTC2020-Spring)*, IEEE, May 2020, pp. 1–5. doi: 10.1109/VTC2020-Spring48590.2020.9128579.

[26] Alrabeiah, Hredzak, and Liu, "ViWi Dataset Framework," https://www.viwi-dataset.net/.

[27] N. Morozs, W. Gorma, B. T. Henson, L. Shen, P. D. Mitchell, and Y. V. Zakharov, "Channel Modeling for Underwater Acoustic Network Simulation," *IEEE Access*, vol. 8, pp. 136151–136175, 2020, doi: 10.1109/ACCESS.2020.3011620.

[28] N. Morozs, W. Gorma, and B. Henson, "Channel Modeling for Underwater ," https://github.com/nilsmorozs/uwa-channel-model.