References

[1] H. Basyoni, N. Fetais, A. Erbad, A. Mohamed, and M. Guizani, "Traffic analysis attacks on Tor: A survey," in 2020 IEEE International Conference on Informatics, IoT, and Enabling Technologies (ICIoT), 2020, pp. 183-188.

[2] D. Rust, P. Lacaille, and J. Cherian, "DarkNet traffic detection through machine learning," IEEE Access, vol. 11, pp. 57205-57218, 2023.

[3] K. Jin, X. Wang, S. Li, R. Xu, and Y. Zhou, "FedETC: A federated learning framework for encrypted traffic classification in IoT environments," IEEE Internet of Things Journal, vol. 11, no. 5, pp. 8932-8945, 2024.

[4] R. F. Istiqomah, P. Sukarno and A. A. Wardana, "Coordinated Attacks Detection Simulation With Deep Neural Network Algorithm and Federated Learning," pp. 12-16, doi: 10.1109/WCCCT60665.2024.10541722.

[5] Q. Yang, Y. Liu, T. Chen, and Y. Tong, "Federated machine learning: Concept and applications," *ACM Transactions on Intelligent Systems and Technology*, vol. 10, no. 2, pp. 1–19, 2019.

[6] Y. Wang, S. Li, and Z. Zhang, "Network traffic classification with federated semi-supervised learning," IEEE Transactions on Network and Service Management, vol. 21, no. 1, pp. 204-217, 2024.

[7] X. Jin, Y. Li, and D. Wei, "Federated semi-supervised learning for network intrusion detection in IoT environments," IEEE Internet of Things Journal, vol. 10, no. 15, pp. 13642-13656, 2023.

[8] K. Yoshimura and T. Nakamura, "DoC-FSSL: Document-level classification via federated semi-supervised learning with incomplete labels," in Proceedings of IEEE International Conference on Data Mining (ICDM), 2022, pp. 637-646.

[9] D. Sarkar, S. Chatterjee, and P. Mitra, "Detection of Tor traffic using deep learning," in 2020 International Conference on Advances in Computing and Communication Engineering (ICACCE), 2020, pp. 1-6.

[10] M. Al-Fayoumi and S. Nashwan, "Tor detection and traffic classification using machine learning and deep learning techniques," IEEE Access, vol. 10, pp. 64323-64338, 2022.

[11] L. Rust and T. Nguyen, "DarkNet traffic analysis using autoencoder-based feature selection methods," IEEE Transactions on Information Forensics and Security, vol. 17, pp. 1842-1857, 2022.

[12] A. A. Wardana and P. Sukarno, "Taxonomy and Survey of Collaborative Intrusion Detection System using Federated Learning," *ACM Computing Surveys*, vol. 57, no. 4, Article 88, pp. 1-36, April 2025, https://doi.org/10.1145/3701724

[13] T. Zhou, Z. Lin, J. Zhang, and D. H. K. Tsang, "Understanding and Improving Model Averaging in Federated Learning on Heterogeneous Data," *IEEE Transactions on Mobile Computing*, 2023, doi:10.1109/TMC.2023.3325366.

[14] T. Li, A. K. Sahu, A. Talwalkar, and V. Smith, "Federated learning: Challenges, methods, and future directions," *IEEE Signal Processing Magazine*, vol. 37, no. 3, pp. 50–60, 2020.

[15] G. Litrico, V. Ramos, and D. Culita, "Guiding pseudo-label learning in federated settings: A knowledge-based approach," in Proceedings of the International Conference on Learning Representations (ICLR), 2023, pp. 1-15.

[16] K. Pillutla, S. M. Kakade, and Z. Harchaoui, "Robust aggregation for federated learning," IEEE Transactions on Signal Processing, vol. 70, pp. 1142-1154, 2022.

[17] K. Nishimoto and T. Shimada, "FedATM: Federated learning with adaptive trimmed mean against byzantine attacks," in 2023 IEEE Conference on Dependable and Secure Computing (DSC), 2023, pp. 1-8.

[18] P. Colosimo and M. Krouka, "Median-based robust federated learning for heterogeneous network intrusion detection," IEEE Transactions on Network and Service Management, vol. 20, no. 3, pp. 3021-3035, 2023.

[19] P. Kairouz et al., "Advances and open problems in federated learning," *Foundations and Trends in Machine Learning*, vol. 14, no. 1–2, pp. 1–210, 2021.

[20] X. Chen, J. Gong, C. Chen, and S. Xiang, "Federated learning for cybersecurity: Concepts, challenges, and future directions," *IEEE Network*, vol. 37, no. 1, pp. 38–45, 2023.