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FAKE PROFILE IDENTIFICATION IN SOCIAL NETWORK USING MACHINE LEARNING

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ABSTRACT

Almost everyone in the world makes use of social networking services. The daily life of many people including me is highly influenced by how the users interact with them on social platforms such as Twitter and Instagram. At present, social network sites are part of life for most people. Platforms for social media like Twitter, Instagram, and others have a big impact on our lives. Across the world, people are actively engaged in it. Popular social networking sites have been used as a target by spammers to spread a lot of harmful and irrelevant data. In Now a day's online social networks, finding spammers and fraudulent users on Twitter has recently become a hot research area (OSNs).phoney content, based on URL spam, The availability of the vast amount of information and their open nature attracts the interest of cybercriminals to create steal data. Malicious bots in these platforms are automated or semi-automated entities used in nefarious ways while simulating human behaviour. The architecture and hyper parameters are also discussed in this session.

Keywords: OSN, Spam, fake account, URL, twitter, social media

1. Introduction

It is hard to dispute the fact that social networking websites such as Instagram, Facebook, and Twitter are very popular with numerous users spending lots of time on them [1]. There are differences in the functionality of these sites: while some are oriented towards socialization, others emphasize information dissemination. Nevertheless, for all the advantages that these sites provide, there are also serious disadvantages where security

and privacy are concerned [2]. Many people provide their private information without considering that they might be endangering themselves. Because of this, they are at risk of having their identity stolen, where another person takes advantage of another's credentials for their selfish interests [3-17]. The impact of this can be very devastating and may include financial loss, legal trouble, loss of good name, and loss of good relationships with family and friends. One big problem is that most social network sites do not have robust privacy settings by default[18-20]. This implies that users are quite often perpetrated fraud and or abused. In addition, you can also find that the users do not sufficiently verify the identities that they are dealing with, making it easy for fraudsters to come in and act as other people and commit various implications[21-23]. To cut a long story short, social networking sites do help one meet new people but at the same time they have lots of issues that need to be tackled regarding the people's privacy and security. Collect a variety of true and false profiles to create a complex database. Identify applicable characteristics, including profile completion rate, activities [24-27]. The examination of user transactions and user engagement may also facilitate some common tendencies that could help in pointing out potential risk for scam activities[28-30]. For instance, a person not engaging with a profile or providing minimal detail is possibly a victim of fraud. By clustering profiles based on these characteristics, the platforms would be able to raise the bar for verification and flag suspicious profiles to processing.

Moreover, even though encouraging the public to use the internet is important, it is also important to make them understand the features that will protect their personal information[31]. This will help these people to manage their much information and thus take away the likelihood of identity theft and other crimes via the cyber space[32-36]. In conclusion, while social networking sites aim at making relationships better, there is an urgent need to adopt an equilibrium between providing services and securing the users' information and privacy.

[37] For example, AI algorithms could analyze user interactions in real time, identifying anomalies such as sudden spikes in messaging or unusual friend requests[38-40]. This proactive monitoring could help catch potential scams before they escalate.

Moreover, implementing two-factor authentication and encouraging users to create strong, unique passwords can significantly bolster account security [41-43]. Platforms might also consider periodic reminders for users to review their privacy settings, ensuring that they remain aware of who can see their information. In addition to technical solutions, fostering a community culture of vigilance is important. Encouraging users to report suspicious activity or profiles can create a collaborative environment where everyone contributes to safety [44-49]. Workshops or webinars on digital literacy can also equip users with the knowledge needed to navigate social networks securely.

Ultimately, while the benefits of social networking sites are substantial, addressing the associated privacy and security concerns is vital [50]. By combining technological advancements with user education and community engagement, these platforms can create a safer, more trustworthy online experience for everyone.

2. Literature Survey

The modern world has changed immensely in the past decade, to the extent where social networking sites including Facebook, Twitter, Instagram, etc. have turned out to be an aid to human communication, whether

personal or business[51-53]. However, the very characteristics that make such platforms popular, namely, the openness which allows any internet user to join the platform, are also the reason for its abuse by some of its users as cybercriminals who use bots to perpetrate negative changes in the system [54-57]. The bot is a malicious tool that has come to dominate the hacker crime market, stimulating click fraud, profile fraud, fan/sock puppet accumulation, and high jacking, among many other acts, to support even weighty on-line scams and projects. These malevolent bots are impossible to crack as its characteristics are different from others which make it a ticking time bomb to cyber security professionals who are in the tussle of undertaking an arms race by coming up and deploying suitable means for these bots' detection and prevention. Such activities are to a less extent directed towards productivity-improving endeavours but actually to terrorists; [58] however, the disposable profusion of substandard fake accounts and bots on Twitter today is not only harmful to the bottom line of any business but most degrading to the brand itself and the quality of its social proof. The information distortion faced by users across such channels increases risk to analysts and reporters who are abstractive and critical thinkers. In addition to the challenges posed by malicious bots, the sheer volume of substandard fake accounts contributes to an overwhelming noise in online discourse, making it increasingly difficult for users to discern credible information [59]. This can lead to misinformed decisions, whether in personal matters or business strategies, as individuals and organizations struggle to separate fact from fiction.

The implications extend beyond individual users; businesses that rely on social media for marketing and engagement face significant threats to their bottom lines. Companies can suffer from skewed analytics, which misrepresent audience engagement and hinder effective marketing strategies[60]. When potential customers encounter a brand plagued by fake accounts or bots, their trust is compromised, leading to decreased loyalty and potential revenue loss.

To counter these issues, social media companies must invest in developing more sophisticated algorithms capable of identifying and mitigating bot activity without infringing on user privacy. [62] Transparency in the verification processes for accounts can help rebuild user confidence. Additionally, fostering a culture of digital literacy among users will empower them to critically evaluate the information they encounter, promoting healthier online interactions.

3. Existing System

Implementing fraud detection systems is complex due to the limited availability of literature and real-world data, as financial information must remain confidential to safeguard customer privacy. To overcome these challenges, a robust fraud detection system should possess several critical attributes. It must handle skewed distributions effectively, given that fraudulent transactions are rare compared to legitimate ones. Furthermore, the system needs to be adaptable to emerging fraud techniques, as fraudsters constantly refine their methods to evade detection. Effective evaluation metrics are also necessary; traditional accuracy measures may not be sufficient due to the imbalanced nature of fraud detection. Therefore, metrics like precision, recall, and F1-score are more appropriate for assessing the system's performance and ensuring its effectiveness in identifying fraudulent activities.

4. Proposed System

Be used to detect Fake profile detection. Some of these approaches are Machine Learning and a proper and thorough literature survey concludes that there are various methods that can NLP. To effectively address and mitigate threats on social networks, it is essential to classify user profiles into genuine and fake categories. This classification helps in identifying legitimate users versus malicious actors, thereby improving the security and integrity of social platforms. Traditionally, various classification methods have been used to detect fake profiles, involving the analysis of profile attributes, user behaviour, and content patterns. However, these methods often struggle to keep pace with the evolving tactics of cybercriminals who continuously refine their approaches to evade detection. we can significantly improve the accuracy of fake profile detection and strengthen threat mitigation strategies on social networks.

On this paper we presented a machine learning and natural language processing system to observe the false profiles in online social networks. Moreover, we are adding the five algorithms such that model Support Vector Machine (SVM), Random Forest classifier, Gradient Boost classifier, Naïve Bayes, and Logistic Regression algorithm to increase the detection accuracy rate of the fake profiles. In final prediction we gain the values of accuracy, classification report and confusion matrix. This proposed system is used to evaluate the best model to increase the detection accuracy rate of the fake profiles.

Advantages

Accuracy is high when compared to the existing system. Fully secure and easily detect the fake profile in social networks. More datasets are included. We can find the all types of profiles on different social media application also.

System's Architecture

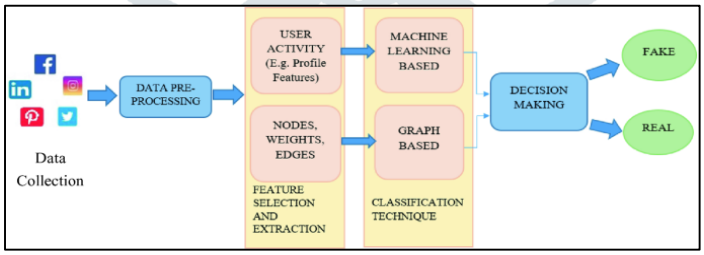

Fig 1 System's Architecture

5. Dataset

We can collect the dataset from the kaggle.com site and placed into our project folder.

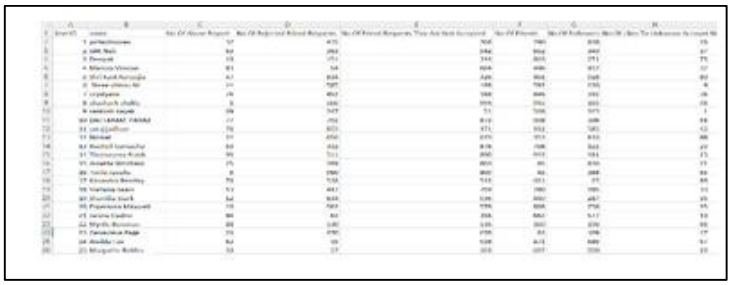

Fig 5.1 Dataset table

6. UML Diagrams

6.1. Class Diagram:

The cornerstone of event-driven data exploration lies in the class outline, which plays a critical role in both validating the application's accuracy through practical tests and demonstrating how the model translates into software code. Class diagrams, as a form of data visualization, are particularly useful in this context. They illustrate the core components of the system, how these components interact, and any changes to the classes involved. Each class in the diagram is represented by a three-participant box, which signifies its involvement in the framework. These classes typically have three distinct sections: the top section for the class name, the middle section for attributes, and the bottom section for methods or actions that the class can perform or reject. This structured approach helps in understanding the relationships and functionalities of different classes within the system.

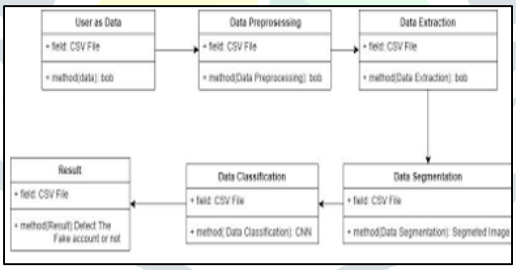

Fig6.1 Class Diagram of the project

6.2. Use case Diagram:

A use case diagram in the Unified Modelling Language (UML) is a type of behavioural diagram that is developed through use-case analysis. Its primary purpose is to provide a graphical overview of the system's functionality by illustrating the interactions between actors (users or other systems) and the system itself. The diagram showcases various use cases, which represent the goals or functions that the system provides to the actors. Additionally, it depicts the dependencies and relationships between these use cases, helping to clarify how different functionalities are interconnected.

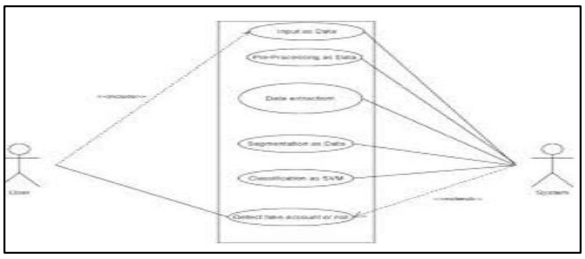

Fig 6.2 Use case Diagram

6.3. Sequence Diagram

A sequence diagram in Unified Modelling Language (UML) is a type of interaction diagram that illustrates how processes or objects interact with one another and the sequence of these interactions. It details the order in which messages are exchanged between objects or components over time, capturing the flow of events and the relationships between different elements of a system. Sequence diagrams, which are derived from Message Sequence Charts, are sometimes referred to as event diagrams, event scenarios, or timing diagrams. They are valuable for visualizing the dynamic behaviour of a system and understanding how different components.

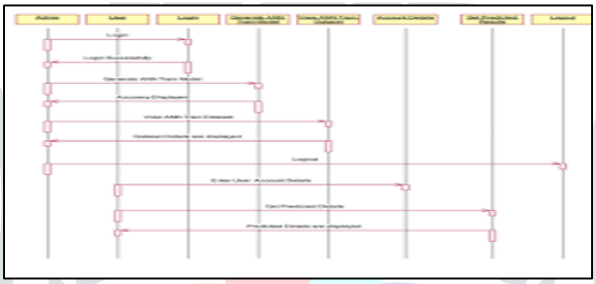

Fig 6.3 Sequence Diagram

7. Result

Output Screens:

Fig 7.1 Finding the accuracy of Instagram

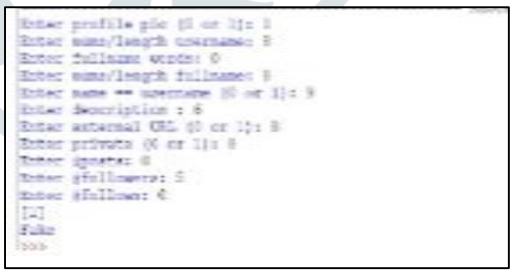

Fig 7.2: Initialize the values of Instagram

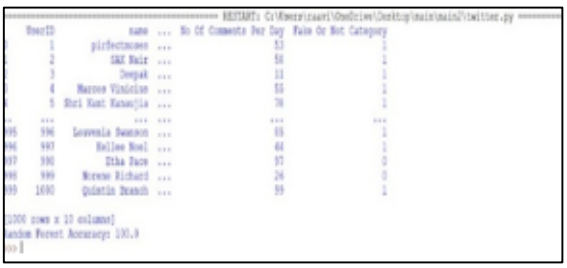

Fig 7.3: Finding accuracy of Twitter

Fig 7.4: Initializing the values in Twitter

Fig 7.5: Running code in Flask

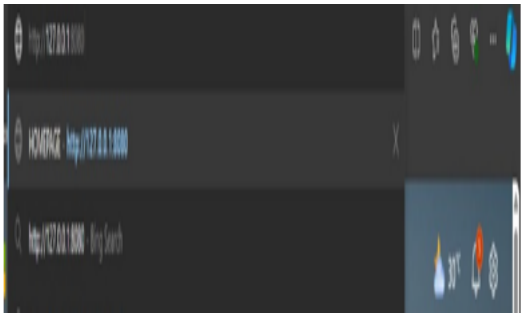

Fig 7.6: copying and pasting URLs

Fig 7.7: Project front page

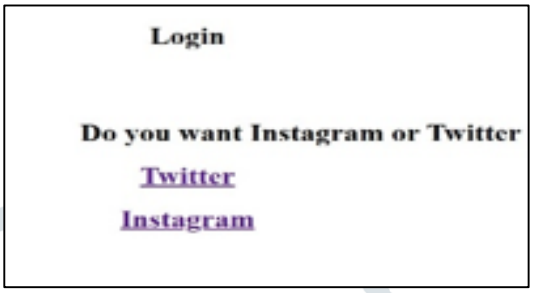

Fig 7.8: login page of project

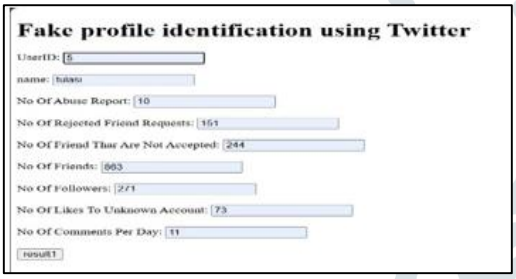

Fig 7.9 Entering values in Instagram-page

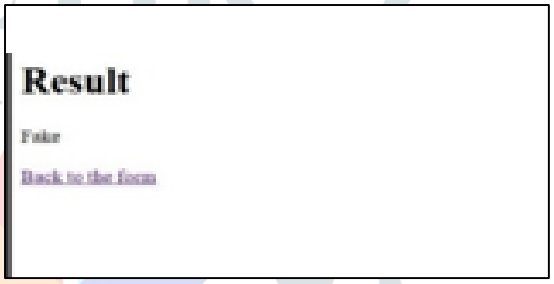

Fig 7.10 Instagram result fake or real

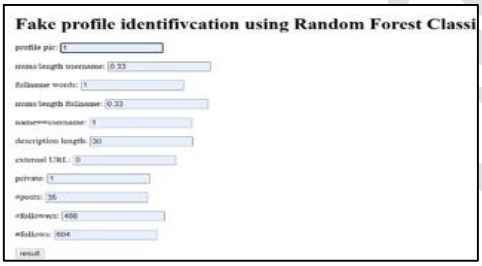

Fig 7.11 Entering values into Twitter page

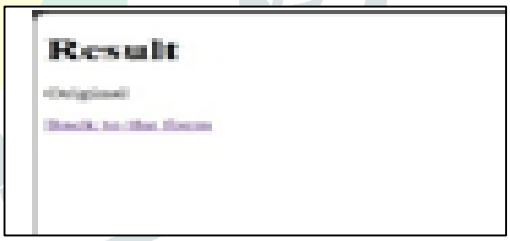

Fig 7.12 Twitter result either fake or real

8. Conclusion

Identifying fake profiles on Instagram and Twitter involves recognizing several distinct indicators that differentiate them from genuine accounts. Fake profiles often exhibit incomplete information, with sparse personal details and only a few posts. The profile pictures are commonly stock photos, images of celebrities, or pictures that seem too perfect, which can sometimes be verified through reverse image searches. These profiles typically show unusual follower-to-following ratios, such as a high number of followers despite having very few posts, or they may follow an excessive number of accounts compared to their follower count. The engagement on these accounts tends to be superficial, characterized by generic or irrelevant comments and likes, and may exhibit sudden, unnatural spikes in activity.

To further scrutinize the authenticity of a profile, examining the language and grammar use in posts and messages can be telling, as fake accounts often use poorly written or nonsensical text. Additionally, checking mutual friends or followers can provide insights, as fake accounts may lack connections with other real or trustworthy accounts. The use of engagement pods or purchased followers is another clue, where the profile has many followers who are also following many other accounts, indicating possible in authenticity.

By staying vigilant and considering these various indicators, users can more effectively identify and avoid interacting with fake profiles on social media platforms, thereby protecting themselves from potential scams, misinformation, and other malicious activities.

9. Reference

[1] Social Media Mining: An Introduction" by Reza Zafarani, Mohammad Ali Abbasi, Huan Liu

[2] This book covers various data mining techniques, including the detection of fake profiles on social media platforms.

[3] Detecting Fake Accounts on social media" by Alex C. H. Le, Roy Ka-Wei Lee, and Ee-Peng Lim -This paper presents methodologies for detecting fake accounts on social media using machine learning techniques.

[4] Uncovering Fake Likers in Online Social Networks" by Hicham B. Kazemian and Stephen J. Brown -This study focuses on identifying fake likes and fake profiles in social networks through behavioral analysis.

[5] "Fake Profile Recognition on Social Media Using Machine Learning Techniques" by Pham, V.-H., and DA. Tran-Published in the journal * Information Systems*, this article explores various machine learning approaches to detect fake profiles.

[6] Patibandla, R. S. M. L., Rao, B. T., Narayana, V. L., & Srinivas, V. S. (2021). An overview of ontology-based artificial intelligence services in health care systems. In Proceedings of the International Conference on Health Care Systems (pp. 47–63).

[7] Maddumala, V. R., Maha Lakshmi, K., Anusha, P., & Lakshman Narayana, V. (2020). Enhanced morphological operations for improving the pixel intensity level. Journal of Computational and Theoretical Nanoscience, 29(3), 9191–9201.

[8] Narayana, V. L., Malleswari, K. S. N., Divyanjali, M., Nandini, S., & Purnima, G. (2023). Video frame based prompt compression model with steganography for secure data transmission. In Proceedings of the International Conference on Advanced Intelligent Systems (pp. 373–377). https://doi.org/10.1109/ICAIS56108.2023.10073883

[9] Naresh, A., Pavani, V., Meghana Chowdary, M., & Lakshman Narayana, V. (2020). Energy consumption reduction in cloud environment by balancing cloud user load. Journal of Critical Reviews, 7(7), 1003–1010. https://doi.org/10.31838/jcr.07.07.184

[10] Patibandla, R. S. M. L., & Vejendla, L. N. (2022). Significance of blockchain technologies in industry. In Advances in Blockchain Technologies (pp. 19–31). https://doi.org/10.1007/978-3-030-70501-5_2

[11] Sharmila, S., Sandhya, P.V.S., Kousar, P. S., Anuradha, P., & Deekshitha, S. (2024). Bank loan approval using machine learning. In Proceedings of the 2nd International Conference on Integrated Circuits and Communication Systems (ICICACS 2024). https://doi.org/10.1109/ICICACS60521.2024.10498192

[12] Mohiddin, S.K., Sharmila, S., & Sharma, V. (2024). Tools and framework for cyber-physical agricultural systems. In Agri 4.0 and the Future of Cyber-Physical Agricultural Systems (pp. 37–53). https://doi.org/10.1016/B978-0-443-13185-1.00003-4

[13] Sharmila, S., & Aparna, C. (2024). Tracing footprints of anti-forensics and assuring secured data transmission in the cloud using an effective ECCDH and Kalman filter. Journal of Network and Computer Applications, 221, Article 103762. https://doi.org/10.1016/j.jnca.2023.103762

[14] Sharmila, S.K., Kavya Nagasai, G., Sowmya, M., Sai Prasanna, A., Navya Sri, S., & Meghana, N. (2023). Automatic attendance system based on face recognition using machine learning. In Proceedings of the 7th International Conference on Computing Methodologies and Communication (ICCMC 2023, pp. 170–174). https://doi.org/10.1109/ICCMC56507.2023.10084017

[15] Pasala, S., Pavani, V., Lakshmi, G. V., & Narayana, V. L. (2020). Identification of attackers using blockchain transactions using cryptography methods. Journal of Critical Reviews, 7(6), 368–375. https://doi.org/10.31838/jcr.07.06.65

[16] Mounika, B., Anusha, P., Narayana, V. L., & Lakshmi, G. V. (2020). Use of blockchain technology in providing security during data sharing. Journal of Critical Reviews, 7(6), 338–343. https://doi.org/10.31838/jcr.07.06.59

[17] Narayana, V. L., Vinayaki, K. V., Swetha, P. A., Sri, K. D., & Chaithanya, G. (2024). Superior attribute weighted set for object skeleton detection using ResNet50 with edge-based segmentation model. In Proceedings of the International Conference on Smart Computing and Systems (pp. 1132–1139). IEEE. https://doi.org/10.1109/ICSCSS60660.2024.10624879

[18] Gopi, A. P., & Naik, K. J. (2022). An IoT model for fish breeding analysis with water quality data of pond using modified multilayer perceptron model. 2022 International Conference on Data Analytics for Business and Industry (ICDABI), 448-453. https://doi.org/10.1109/ICDABI56818.2022.10041617

[19] Arepalli, P. G., & Naik, K. J. (2024). A deep learning-enabled IoT framework for early hypoxia detection in aqua water using lightweight spatially shared attention-LSTM network. Journal of Supercomputing, 80(2), 2718-2747. https://doi.org/10.1007/s11227-023-05580-x

[20] Arepalli, P. G., & Naik, K. J. (2023). An IoT-based water contamination analysis for aquaculture using lightweight multi-headed GRU model. Environmental Monitoring and Assessment, 195(12), Article 1516. https://doi.org/10.1007/s10661-023-12126-4

[21] Gopi, A. P., Gowthami, M., Srujana, T., Gnana Padmini, S., & Durga Malleswari, M. (2023). Classification of denial-of-service attacks in IoT networks using AlexNet. In Smart Innovation, Systems and Technologies (Vol. 316, pp. 349-357). https://doi.org/10.1007/978-981-19-5403-0_30

[22] Bikku, T., Gopi, A. P., & Prasanna, R. L. (2019). Swarming the high-dimensional datasets using ensemble classification algorithm. In Advances in Intelligent Systems and Computing (Vol. 815, pp. 583-591). https://doi.org/10.1007/978-981-13-1580-0_56

[23] Arepalli, P. G., & Khetavath, J. N. (2024). Water quality classification using multi-cell RNN in aquaculture ponds for Catla fish. In Lecture Notes in Networks and Systems (Vol. 897, pp. 363-370). https://doi.org/10.1007/978-981-99-9704-6_34

[24] Arepalli, P. G., & Naik, K. J. (2024). Water contamination analysis in IoT-enabled aquaculture using deep learning-based AODEGRU. Ecological Informatics, 79, Article 102405. https://doi.org/10.1016/j.ecoinf.2023.102405

[25] Arepalli, P. G., & Naik, K. J. (2024). An IoT-based smart water quality assessment framework for aqua-ponds management using Dilated Spatial-temporal Convolution Neural Network (DSTCNN). Aquacultural Engineering, 104, Article 102373. https://doi.org/10.1016/j.aquaeng.2023.102373

[26] Gopi, A. P., Narayana, V. L., & Kumar, N. A. (2018). Dynamic load balancing for client-server assignment in distributed systems using genetic algorithm. Ingenierie des Systemes d'Information, 23(6), 87-98. https://doi.org/10.3166/ISI.23.6.87-98

[27] Sarada, K., Narayana, V. L., Gopi, A. P., & Pavani, V. (2020). An iterative group based anomaly detection method for secure data communication in networks. Journal of Critical Reviews, 7(6), 208-212. https://doi.org/10.31838/jcr.07.06.39

[28] Narayana, V. L., Gopi, A. P., & Chaitanya, K. (2019). Avoiding interoperability and delay in healthcare monitoring system using blockchain technology. Revue d'Intelligence Artificielle, 33(1), 45-48. https://doi.org/10.18280/ria.330108

[29] Gopi, A. P., Jyothi, R. N. S., Narayana, V. L., & Sandeep, K. S. (2023). Classification of tweets data based on polarity using improved RBF kernel of SVM. International Journal of Information Technology, 15(2), 965-980. https://doi.org/10.1007/s41870-019-00409-4

[30] Narayana, V. L., Gopi, A. P., Khadherbhi, S. R., & Pavani, V. (2020). Accurate identification and detection of outliers in networks using group random forest methodology. Journal of Critical Reviews, 7(6), 381-384. https://doi.org/10.31838/jcr.07.06.67

[31] Rao, B. T., Patibandla, R. S. M. L., Narayana, V. L., & Gopi, A. P. (2021). Medical data supervised learning ontologies for accurate data analysis. In Semantic Web for Effective Healthcare Systems (pp. 249-267). https://doi.org/10.1002/9781119764175.ch11

[32] Patibandla, R. S. M. L., Gopi, A. P., Narayana, V. L., & Rao, B. T. (2023). Decentralized smart healthcare systems using blockchain and AI. In Blockchain applications in healthcare: Innovations and practices (Vol. 1, pp. 139-154). DOI: 10.1002/9781394229512.ch8

[33] Lakshman Narayana, V., & Gopi, A. P. (2020). Enterotoxigenic Escherichia coli detection using the design of a biosensor. Journal of New Materials for Electrochemical Systems, 23(3), 164-166. DOI: 10.14447/jnmes.v23i3.a02

[34] Rani, B. M. S., Majety, V. D., Pittala, C. S., Vijay, V., Sandeep, K. S., & Kiran, S. (2021). Road Identification Through Efficient Edge Segmentation Based on Morphological Operations. Traitement du Signal, 38(5).

[35] .Kanumalli, S. S., Ch, A., & Murty, P. S. R. C. (2020). Secure V2V Communication in IOV using IBE and PKI based Hybrid Approach. International Journal of Advanced Computer Science and Applications, 11(1).

[36] 3.Kiran, S., Kanumalli, S. S., Krishna, K. V. S. S. R., & Chandra, N. (2021). WITHDRAWN: internet of things integrated smart agriculture for weather predictions and preventive mechanism.

[37] Chaitanya, Kosaraju, and Sankara Narayanan. "Security and Privacy in Wireless Sensor Networks Using Intrusion Detection Models to Detect DDOS and Drdos Attacks: A Survey." 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE, 2023.

[38] Krishna, Komanduri Venkata Sesha Sai Rama, et al. "Classification of Glaucoma Optical Coherence Tomography (OCT) Images Based on Blood Vessel Identification Using .CNN and Firefly Optimization." Traitement du Signal 38.1 (2021).

[39] Chaitanya, Kosaraju, et al. "Predicting the Spread of Covid Disease Based on Chest X-Ray Images Using Convolutional Neural Network with Improved Accuracy." 2023 6th International Conference on Advances in Science and Technology (ICAST). IEEE, 2023.

[40] Ekkurthi, A., Sujatha, V., Kumar, K.V.,"Effective Moving Object Tracking Using Adaptive Background Subtraction with Advanced Probability Evolutionary Algorithm",International Journal on Recent and Innovation Trends in Computing and Communication, 2023, 11, pp1–3.

[41] Sujatha, V., Yaddala, M., Kollipara, V., Shaik, K., Burri, R.K(23),"Movie reviews data classification using convolution neural networks",AIP Conference Proceedings. 2023, 2724, 030009

[42] Godavarthi, B., Majety, V. D., Mrudula, Y., & Nalajala, P. (2019). Fault identification in power lines using GSM and IoT technology. Advances in Intelligent Systems and Computing, 815, 647–655. https://doi.org/10.1007/978-3-319-91117-2_70

[43] Majety, V. D., & Murali, G. (2018). A remote epileptic patient supervising system. Advances in Modelling and Analysis B, 61(4), 207–210. https://doi.org/10.18280/ama_b.610402

[44] Naresh, A., TSLP, H., Ch, G., & Kumari, G. R. P. (2023, July). Early Prophecy of Low-Birth-Weight Babies Using BM Error Rate Classifier. In 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-6). IEEE.

[45] Kumari, G. R. P., Reddy, A. H., Lakshmi, K., Abhinaya, B., Sanjana, S., & Naresh, A. (2024, March). Time-Frame-Based Drowsiness Detection System Using CNN. In 2024 2nd International Conference on Disruptive Technologies (ICDT) (pp. 711-716). IEEE.

[46] V. Pavani, K. Divya, V. V. Likhitha, G. S. Mounika and K. S. Harshitha, "Image Segmentation based Imperative Feature Subset Model for Detection of Vehicle Number Plate using K Nearest Neighbor Model," 2023 Third International Conference on Artificial Intelligence and Smart Energy (ICAIS), Coimbatore, India, 2023, pp. 704-709, doi: 10.1109/ICAIS56108.2023.10073848.

[47] V. Pavani, M. N. Swetha, Y. Prasanthi, K. Kavya and M. Pavithra, "Drowsy Driver Monitoring Using Machine Learning and Visible Actions," 2022 International Conference on Electronics and Renewable Systems (ICEARS), Tuticorin, India, 2022, pp. 1269-1279, doi: 10.1109/ICEARS53579.2022.9751890.

[48] Sri, Kurra Santhi, et al. "Advanced system control with traffic handling for secure communication in IoT routing protocol." Journal Européen des Systèmes Automatisés 54.2 (2021): 229-233.

[49] Arumugham, Vinothini, et al. "An explainable deep learning model for prediction of early-stage chronic kidney disease." Computational Intelligence 39.6 (2023): 1022-1038.

[50] Majety, Vasumathi Devi, et al. "Enhanced secure communication AODV routing protocol using SVM in MANETS." AIP Conference Proceedings. Vol. 2724. No. 1. AIP Publishing, 2023.

[51] Krisha, P.S., Peram, S.R. (2023). CT image precise denoising model with edge based segmentation with labeled pixel extraction using CNN based feature extraction for oral cancer detection. Traitement du Signal, Vol. 40, No. 3, pp. 1297-1304. https://doi.org/10.18280/ts.400349

[52] P. S. Krishna, V. R. Aparna, V. Priyanka, P. T. Niharika and T. Shivangi, "Convolution Neural Network Model with Feature Linked Vector for Oral Cancer Detection," 2023 IEEE 12th International Conference on Communication Systems and Network Technologies (CSNT), Bhopal, India, 2023, pp. 304-308, doi: 10.1109/CSNT57126.2023.10134660.

[53] Rayachoti, Eswaraiah, Sudhir Tirumalasetty, and Silpa Chaitanya Prathipati. "SLT based watermarking system for secure telemedicine." Cluster Computing 23.4 (2020): 3175-3184.

[54] Eswaraiah, Rayachoti, Tirumalasetty Sudhir, and Prathipati Silpa Chaitanya. "Curvelet transform based watermarking for telemedicine." Wireless Personal Communications 122.1 (2022): 309-329.

[55] Varshini, Y., Mounika, T., Kumari, G. R. P., Sirisha, G., & Deepthi, Y. (2023, March). Crop Yield Forecast Using Machine Learning. In 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS) (Vol. 1, pp. 2310-2315). IEEE.

[56] B. Aruna Kumari "Time Series Data Classification for Precise Stock Market Price Prediction using ML" ICICACS International Conference on Integrated Circuits and Communication Systems, Scopus indexed, ISBN:979-8-3503-1755-8/ https://ieeexplore.ieee.org/document/10498248,18 April 2024

[57] B.Aruna Kumari "HumanvAction Recognition From Video Frames Using Recurrent Neural Networks" ICDT 2nd International Conference on Disruptive Technologies (ICDT),Scopis indexed ,ISBN:979-8-3503-7105-5/ https://ieeexplore.ieee.org/document/10489658, 11 April 2024

[58] "Understanding the Detection of Fake Accounts on Social Networks" by A. Monroy, A. Fernández Anta, and C. Gauger -This article reviews different detection techniques and their effectiveness in identifying fake accounts on social networks.

[59] "Automated Social Media Bot Detection using Machine Learning" by Fernando Benevenuto et al.-Presented at the ACM Conference on Web Search and Data Mining, this paper discusses the use of machine learning to detect automated bots posing as human users.

[60] "A Comparative Study on Feature Extraction for Fake Profile Detection" by Yu, S., and V. Dabbagh -Presented at the International Conference on Data Mining Workshops, this paper compares different feature extraction techniques used in fake profile detection.

[61] Symantec's Blog on "Detecting Fake Social Media Accounts" -Symantec provides insights and tips on recognizing fake accounts through various indicators.

[62] Kaspersky's Blog on "How to Spot a Fake Social Media Profile" -Kaspersky offers practical advice on identifying fake profiles on social media.