S Abhishek

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SUMMARY

Experienced Computer Science Engineer specializing in Artificial Intelligence, Data Engineering, and Digital Forensics. Currently serving as a Data Engineer at Rolls-Royce, contributing to the company's data strategy and operations through active participation in diverse data projects. Proficient in Machine Learning (ML), Deep Learning (DL), and Image Processing, with notable expertise in leveraging these technologies to enhance data-driven decision-making, as reflected in over 70 published research studies presented at conferences. Demonstrate a commitment to excellence in driving innovation and efficiency within digital technologies and data analytics.

WORK EXPERIENCE

Data Engineer   Dec 2022 - Present

Rolls-Royce

- Developed and integrated sophisticated backend and frontend solutions to streamline processes, utilizing cutting-edge tools such as Databricks, PowerBI, Microsoft Azure SQL, and Azure Data Factory.
- Significantly improved real-time operational monitoring, enabling swift decision-making, and contributed to long-term strategic forecasting enhancements.
- Played a pivotal role in the success of the Operational Changes product, directly contributing to an impressive €11 million increase in revenue.
- Led the implementation of the Medallion Architecture within a Data Lakehouse, setting new standards for data organization and accessibility.

CTF Player & Digital Forensics Analyst   Jan 2021 - May 2022

Team Bi0s

- Conducted thorough digital forensic investigations, providing critical insights to support incident response.
- Leveraged Autopsy, Wireshark, FTK Imager, DB Browser, Registry Explorer, and other tools to analyze digital evidence, ensuring the preservation and integrity of data.
- Collaborated with cross-functional teams to identify and mitigate security incidents, minimizing potential risks to organizational assets.

EDUCATION

2019 - 2023	**Bachelor of Technology in Computer Science and Engineering** at Amrita Vishwa Vidyapeetham	First Class with Distinction (GPA: 9.73/10)

Skills

Programming Languages	Python, SQL, C, C++, Java, Haskell, Scala
Data Engineering	Data Modeling, ETL Processes
Cloud and Big Data	Azure Data Factory, Microsoft SQL Server, Databricks, PySpark
Data Visualization	Power BI
Artificial Intelligence	Machine Learning, Deep Learning, Image Processing, Pattern Recognition
Digital Forensics	Autopsy, FTK Imager, Wireshark, DB Browser, Registry Explorer
Incident Response	Analyzing security incidents, Mitigating risks
Effective Communication	Strong written and verbal communication skills, adept at conveying complex technical concepts to diverse audiences
Continuous Learning	Proactive in staying updated with industry trends and technologies, driven by a passion for learning and a commitment to professional growth
Leadership	Skilled in providing guidance, mentoring team members, and driving projects to successful completion
Organizational Skills	Proficient in managing complex projects, prioritizing tasks, and meeting deadlines in fast-paced environments
Collaborative Team Member	Demonstrated ability to work effectively within interdisciplinary teams, fostering a culture of cooperation and mutual respect

Projects

Hydra   GitHub

- Highlighted the proficiency of visually impaired individuals in roles such as customer support, writing, and product testing, effectively addressing employment challenges.
- Implemented assistive technology with voice recognition, providing seamless access to computers and the internet for visually impaired individuals.
- Fostered an inclusive work environment, enabling visually impaired individuals to contribute effectively and competitively.

Ausculation Sound Classification   GitHub

- Processed and curated a comprehensive dataset of auscultation sounds, employing advanced signal processing techniques for feature extraction to enhance model accuracy.
- Developed a high-performance deep learning model capable of accurately classifying auscultation sounds, demonstrating the potential for improved diagnostic support in healthcare applications.

Password Based Door Open System [GitHub]

- Successfully integrated LPC2148 microcontroller technology into a password-based door open system, providing a secure and efficient means of access control.
- Implemented a reliable and responsive door access control system, leveraging LPC2148's capabilities, ensuring safe and controlled entry through password authentication.

Spam Email Detection [GitHub]

- Developed a robust Spam Email Detection system using machine learning, achieving 98.9% accuracy.
- Conducted data preprocessing and feature engineering to enhance model performance, utilizing techniques such as TF-IDF for effective feature representation.
- Proficiently used Python, Scikit-learn, NLTK, and TensorFlow for model development, contributing to enhanced cybersecurity measures.

Uber Pickups Data Analysis [GitHub]

- Identified peak hours and days for Uber pickups through a detailed analysis of temporal patterns and high-demand locations by exploring the geographical distribution of Uber pickups.
- Analyzed the impact of external factors (weather, events) on pickup frequencies.
- Visualized key trends through plots, providing actionable insights for operational improvements.

CONFERENCE PUBLICATIONS

Published

1. Krishnapriya, V.S., N. Suresh, S.R. Srilakshmi, S. Abhishek, and T. Anjali (2024). "Intelligent and Real-Time Intravenous Drip Level Indication". In: *IoT Based Control Networks and Intelligent Systems (ICICNIS 2023)*. Ed. by P.P. Joby, M.S. Alencar, and P. Falkowski-Gilski. Vol. 789. Lecture Notes in Networks and Systems. Springer, Singapore. DOI: 10.1007/978-981-99-6586-1_52.

2. A, Siva Sankar, Nirmal Kumar K, Sidharth M Dinesh, S Abhishek, and Anjali T (2023). "Intelligent Trip Planning with Integrated Street View: A Seamless AI-driven Approach". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–6. DOI: 10.1109/i-PACT58649.2023.10434354.

3. A S, Akshay, Gokul Yesudas, Muhammed Azeem Yoonus, S Abhishek, and Anjali T (2023). "Revolutionizing Last-Mile Delivery: Unleashing Unprecedented Efficiency in Package Logistics". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–5. DOI: 10.1109/i-PACT58649.2023.10434846.

4. Abhiram, S, GM Vaishnav, T Anjali, S Abhishek, et al. (2023). "Ortho Vision: Autoencoder-CNN Fusion Approach for Fracture Detection". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 901–909.

5. Abhishek, S, Aj Ananthapadmanabhan, Mahima Chowdary Mannava, and Anjali T (2023). "ESP8266 - based Real-time Auscultation Sound Classification". In: *2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)*, pp. 1601–1607. DOI: 10.1109/ICSCDS56580.2023.10104921.

6.   Abhishek, S, T Anjali, and Sincy Raj (2023). "Harnessing Deep Learning for Precise Rice Image Classification: Implications for Sustainable Agriculture". In: *2023 5th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 557–564. DOI: 10.1109/ICIRCA57980.2023.10220609.

7.   Abhishek, S, Mahima Chowdary Mannava, AJ Ananthapadmanabhan, and Anjali T (2023). "Towards Accurate Auscultation Sound Classification with Convolutional Neural Network". In: *2023 International Conference on Innovative Data Communication Technologies and Application (ICIDCA)*, pp. 254–260. DOI: 10.1109/ICIDCA56705.2023.10099511.

8.   Abhishek, S, Adithya Rajendran, Akhbar Sha, T Anjali, and Arun Karunakaran Nair (2023). "Enhancing Android Security: Dynamic Analysis for Resilient Defences Using Machine Learning". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 1458–1463.

9.   Abhishek, S, Rahulkrishnan Ravindran, Anjali T, and Shriamrut V (2023). "AI-Driven Deep Structured Learning for Cross-Site Scripting Attacks". In: *2023 International Conference on Innovative Data Communication Technologies and Application (ICIDCA)*, pp. 701–709. DOI: 10.1109/ICIDCA56705.2023.10099960.

10.   Abhishek, S, Anjali T, Prathiba Prakash, and Arun Karunakaran Nair (2023). "Enhancing Android Security: Static Analysis for Robust Protection and Resilient Defences using Deep Learning". In: *2023 7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, pp. 154–159. DOI: 10.1109/I-SMAC58438.2023.10290413.

11.   Abhishek, S, Anjali T, and Lekshmi S (2023). "Ecoskinomics: Exploring the Ecological Factors Shaping Skin Health". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–5. DOI: 10.1109/i-PACT58649.2023.10434737.

12.   Abhishek, S., M.C. Mannava, A.J. Ananthapadmanabhan, and T. Anjali (2023). "The Auscultation Sound Classification Era of the Future". In: *Smart Trends in Computing and Communications (SmartCom 2023)*. Ed. by T. Senjyu, C. So-In, and A. Joshi. Vol. 650. Lecture Notes in Networks and Systems. Springer, Singapore. DOI: 10.1007/978-981-99-0838-7_47.

13.   Abhishek, S., P. Prakash, T. Anjali, and S. Vijayaraghavan (2023). "Craniofacial and Cervical Aesthetic Surgical Outcome Analysis Using Visual Similarity Metrics". In: *Fourth International Conference on Image Processing and Capsule Networks (ICIPCN 2023)*. Ed. by S. Shakya, J.M.R.S. Tavares, A. Fernández-Caballero, and G. Papakostas. Vol. 798. Lecture Notes in Networks and Systems. Springer, Singapore. DOI: 10.1007/978-981-99-7093-3_34.

14.   Abhishek, S., S. Sanjana, M.C. Mannava, and T. Anjali (2023). "CNN Combined with FC Classifier to Combat Artificial Penta-Digit Text-Based Captcha". In: *Inventive Systems and Control*. Ed. by V. Suma, P. Lorenz, and Z. Baig. Vol. 672. Lecture Notes in Networks and Systems. Springer, Singapore. DOI: 10.1007/978-981-99-1624-5_49.

15.   Addanki, Veerababu, Sathvik Durgapu, Kolla Dorasanaiah, S Abhishek, and Anjali (2023). "Safeguarding SMS: A Dynamic Duo Approach to Tackle Spam Using LDA and QDA". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–6. DOI: 10.1109/i-PACT58649.2023.10434334.

16.   Anvesh, Kalwa, Janagama Vamshi Krishna, Akhbar Sha, S Abhishek, T Anjali, and Nandakishor Prabhu Ramlal (2023). "Spatial Analysis-Enhanced Dermatological Image Classification for Paronychia". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 777–782.

17.   Arun, Abhinand, N R Niranjan, Vishaal S Upot, S Abhishek, and Anjali T (2023). "Smart Bulb : The Impact of Adaptive Brightness Control Based on Human Activity Monitoring in Lighting Systems". In: *2023 7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, pp. 965–970. DOI: 10.1109/I-SMAC58438.2023.10290388.

18.   Dinesan, Krishnpriya, S Sreesankar, Devesh Kumar VV, S Abhishek, and T Anjali (2023). "Navigating the Brain: Unveiling Alzheimer's Disease Using Convolutional Neural Network". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 763–770.

19.   Harikumar, Akash, Amal Vinod, Aravind S, S Abhishek, and Anjali T (2023). "Colour Detection Using HSV and RGB Colour Models". In: *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, pp. 1–7. DOI: 10.1109/ICCCNT56998.2023.10308110.

20.   Inture, Anvita Reddy, Boddu Sasi Sai Nadh, Akhbar Sha, S Abhishek, T Anjali, and Taraka Vignesh Mullapudi (2023). "Leveraging Random Forests for Ovarian Cancer Detection and Precision Prediction". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 910–915.

21.   Krishna, R. Dhanush, M. Mahadev, S. Hariprasad, S. Abhishek, and T. Anjali (2023). "Cultivating Customer Purchase Intent: Leveraging Machine Learning for Precise Predictions". In: *2023 12th International Conference on System Modeling & Advancement in Research Trends (SMART)*, pp. 374–379. DOI: 10.1109/SMART59791.2023.10428402.

22.   Kumpatla, Gautam, Hemanth Veresi, Bala Subrahmanyam P, S Abhishek, and Anjali T (2023). "Revolutionizing Brain Tumour Prediction: A Pioneering GAN-based Framework for Synthetic Data Generation". In: *2023 7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, pp. 548–553. DOI: 10.1109/I-SMAC58438.2023.10290627.

23.   Lakshmi, Vb, Kb Sivachandra, S Abhishek, and T Anjali (2023). "Nephrolithiasis Taxonomy: A Multifaceted Exploration of Renal Calculi". In: *2023 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)*. IEEE, pp. 655–660.

24.   Luke, Alan Koshy, R Adithya Kumar, V G Uday Krishnan, S Abhishek, and Anjali T (2023). "Envision: Assistance System for the Visually Impaired". In: *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, pp. 1–8. DOI: 10.1109/ICCCNT56998.2023.10308142.

25.   Madhan, S, B Neha, Sandeep Neemkar, S Abhishek, and T Anjali (2023). "Text2FashionGAN: Augmenting Personalized Style Recommendations with cGANs and Word2Vec". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 321–328.

26.   Manoj, Rahan, S Abhishek, Bharath Prathap Nair, Anjali T, and Nandakishor Prabhu Ramlal (2023). "A Contemporary Method of Assessing Water Quality based on the Fusion of Predictive Analytics and Deep Structured Learning". In: *2023 8th International Conference on Communication and Electronics Systems (ICCES)*, pp. 961–967. DOI: 10.1109/ICCES57224.2023.10192729.

27.   Panshul, Gade Sai, Dilip Pushadapu, Gona Eswar Kushal Kumar Reddy, S Abhishek, and Anjali T (2023). "DeepTuber: Sequential CNN-based Disease Detection in Potato Plants for Enhanced Crop Management". In: *2023 5th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 380–386. DOI: 10.1109/ICIRCA57980.2023.10220721.

28.   Prabith, GS, S Abhishek, T Anjali, and Nandakishor Prabhu Ramlal (2023). "Advancements in Face Masking Anonymization: Novel Approaches, Robust Privacy Metrics, and Real-Time Solutions". In:

2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA). IEEE, pp. 815–823.

29. Rajendran, Adithya, S Abhishek, Adarsh Krishnan, Nived Krishnan Ramesh, and T Anjali (2023). "CogniVision: Deep Learning Approaches for Image Recognition and Classification". In: *2023 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)*. IEEE, pp. 511–516.

30. Rajendran, Adithya, S Abhishek, Akhbar Sha, and T Anjali (2023). "Thoracic Surgery Outcome Prediction: Harnessing Machine Learning for Post-Operative Life Expectancy Assessment". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 807–814.

31. S, Anantha Krishnan, Hrishika Dayan, Keerthana A, M Gopika Menon, S Abhishek, and Anjali T (2023). "Crop-Chat: Pioneering Agricultural Paradigms". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–5. DOI: `10.1109/i-PACT58649.2023.10434365`.

32. Santhosh, Sethulakshmi, M Meenakshi, F Avani, S Abhishek, and T Anjali (2023). "Machine Learning Approaches for Myers-Briggs Personality Prediction". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 669–676.

33. Sha, Akhbar, Jithin John, M Varundev, Sidharth Surendran, S Abhishek, and T Anjali (2023). "Urban Parking Management through Federated Learning: A Privacy-Preserving Approach to Parking Slot Prediction". In: *2023 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)*. IEEE, pp. 896–901.

34. Sha, Akhbar, ER Adwaith Krishna, Sidharth Surendran, S Abhishek, T Anjali, and Taraka Vignesh Mullapudi (2023). "EzStream: Video Compression and Textual Representation for Multimedia Sensor Networks". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 1807–1812.

35. Sukumar, J G, Mohith Sai Ram Reddy, Nikhileswar Sambangi, S Abhishek, and Anjali T (2023). "Enhancing salary projections: a supervised machine learning approach with flask deployment". In: *2023 5th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 693–700. DOI: `10.1109/ICIRCA57980.2023.10220707`.

36. Suresh, Anjana, Aishwarea Gupthan, S Abhishek, T Anjali, et al. (2023). "Secure Vote: AI-powered Fingerprint Authentication for Next-Generation Online Voting". In: *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*. IEEE, pp. 993–1000.

37. T, Anjali, S Abhishek, and Remya S (2023). "NeuroDerm: Pioneering Dermatological Diagnostics with Advanced Neural Networks". In: *2023 7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, pp. 1161–1168. DOI: `10.1109/I-SMAC58438.2023.10290631`.

38. Thampi, Abhijith A, R Megha, Vanapala Bharath Chandra Varma, S Abhishek, and T Anjali (2023). "Deception Detection in the Digital Age: Pioneering Linguistics and Vision". In: *2023 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)*. IEEE, pp. 667–673.

39. V, Aswin Babu K, Goutham Rajesh, Rahul P Nair, S Abhishek, and Anjali T (2023). "Transforming Attendance Monitoring: The Prodigy of Advanced Face Recognition Systems". In: *2023 Second International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)*, pp. 1032–1039. DOI: `10.1109/ICAISS58487.2023.10250467`.

40.   Varma, Mandapati Siva Sai Krishna, S Abhishek, Sujatha Dandu, and Anjali T (2023). "Human Face Detection and Recognition using Artificial Intelligence". In: *2023 7th International Conference on Trends in Electronics and Informatics (ICOEI)*, pp. 769–775. DOI: 10.1109/ICOEI56765.2023.10126074.

41.   VB, Lakshmi, Sivachandra KB, Parthasaradhi H, S Abhishek, and Anjali T (2023). "An Empirical Analysis of CNN for American Sign Language Recognition". In: *2023 5th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 421–428. DOI: 10.1109/ICIRCA57980.2023.10220822.

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43.   Yerramreddy, Dhanvanth Reddy, Jayasurya Marasani, Ponnuru Sathwik Venkata Gowtham, S Abhishek, and Anjali (2023). "An Empirical Analysis of Topic Categorization Using PaLM, GPT and BERT Models". In: *2023 Innovations in Power and Advanced Computing Technologies (i-PACT)*, pp. 1–6. DOI: 10.1109/i-PACT58649.2023.10434768.

44.   Abhishek, S, Harsha Sathish, Arvind Kumar K, and Anjali T (2022). "Aiding the Visually Impaired using Artificial Intelligence and Speech Recognition Technology". In: *2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 1356–1362. DOI: 10.1109/ICIRCA54612.2022.9985659.

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47.   Ravindran, Rahulkrishnan, S Abhishek, Radhika Ravindran, and Anjali T (2022). "A Dynamically Calibrated Suspension System". In: *2022 13th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, pp. 1–6. DOI: 10.1109/ICCCNT54827.2022.9984619.

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54.   Paul, D. Dennish Andrew, Hemanth Pusuluri, Rahul Dasari, S Abhishek, and Anjali T (2024). "Advanced Smartwatch Data Analysis and Predictive Modeling for Health and Fitness Optimization". In: *6th International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT - 2024)*.

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57.   Abhishek, S, Anjali T, Prathiba Prakash, and Rina Barouch Bentov (2023). "Microbial Taxonomy: An Artful Exploration of Microbes with Neural Networks". In: *3rd International Conference on Intelligent Computing, Communication & Convergence (ICI3C-2023)*.

58.   Annapoorna, E, Sreya V. Sujil, Sreepriya S, S Abhishek, and Anjali T (2023). "Revolutionizing Stock Price Prediction with Automated Facebook Prophet Analysis". In: *5th International Conference on Computer Networks, Big Data, and IoT (ICCBI 2023)*.

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60.   GS, Prabith, S Abhishek, and Anjali T (2023). "Zero-Click Exploits and Malware: An In-Depth Analysis and Case Studies". In: *16th International Conference on Security of Information and Networks (SIN-2023)*.

61.   Gs, Prabith, S Abhishek, and Anjali T (2023). "Next-Gen AI in Medicine: Pioneering Brain Tumor Detection with Adaptive CNNs". In: *3rd International Conference on Intelligent Computing, Communication & Convergence (ICI3C-2023)*.

62.   Kadiyala, Monish Mithra, Prince Abraham George, Jatin Srungarapu, S Abhishek, and Anjali T (2023). "Transfer Learning and Custom CNNs to Advance Traffic Sign Detection". In: *2023 3rd International Conference on Smart Generation Computing, Communication and Networking (SMART GEN-CON)*.

63.   Karthik, Raja Pavan, Kalla Yadu Vamsi, V Sourya Tejarsha, S Abhishek, and Anjali T (2023). "A Comprehensive Framework for Real-Time Image-to-Cartoon Conversion via Multimodal Fusion and Deep Learning". In: *3rd International Conference on Innovative Mechanisms for Industry Applications (ICIMIA - 2023)*.

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65.   Nemmini, Sanghamitra, S Abhishek, Anjali T, and Sincy Raj (2023). "Fortifying Information Security: Security Implications of Microservice and Monolithic Architectures". In: *16th International Conference on Security of Information and Networks (SIN-2023)*.

66.   Pavan, G Sai Ram, Kucharlapati Akash Varma, N Moneesh, S Abhishek, and Anjali T (2023). "Exploring the Potential of GANs, LSTM, and VAEs in the Advancing Music Generation". In: *5th International Conference on Data Science, Machine Learning & Applications (ICDSMLA 2023)*.

67.   Rajan, Akshay, Milan Manoj, Gouri Santhosh, S Abhishek, and Anjali T (2023). "Navigating the Effectiveness of Various ML Algorithms for Myocardial Infarction Prediction". In: *3rd International Conference on Intelligent Computing, Communication & Convergence (ICI3C-2023)*.

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71.   T, Anjali, S Abhishek, and Dr. Remya S (2023). "Transformative AI in Skin Care: The Synergy of Transfer Learning and EfficientNetV2 B0". In: *3rd International Conference on Intelligent Computing, Communication & Convergence (ICI3C-2023)*.

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JOURNAL PUBLICATIONS

Submitted

1. Multimodal Integration of Enhanced Novel Pulmonary Auscultation Real-time Diagnostic System
   Journal: IEEE MultiMedia

2. Revolutionizing Cotton Pest Detection: The Power of Vision Transformer
   Journal: Applications of Artificial Intelligence in Engineering

PATENTS

1. **Real-Time Intelligent Auscultation Sound Diagnostic System**

   Patent Number: 202341045291

   Field of the Invention: The present invention relates to a continuous and remote real-time monitoring system that utilizes deep learning algorithms to analyze and categorize lung sounds automatically. The invention relates to a system which uses deep learning algorithms powered by

artificial intelligence to automatically live-record, identify and categorize lung sounds and share the same with healthcare provider in order to diagnose respiratory diseases in patients. The present invention discloses a remote and continuous real-time sound monitoring system with automated sound analysis capabilities.

Honors & Awards

1. **BlackHat Asia 2022 Student Scholarship** - Issued by BlackHat, May 2022
2. **BlackHat Europe 2021 Student Scholarship** - Issued by BlackHat, Nov 2021
3. **BlackHat USA 2021 Student Scholarship** - Issued by BlackHat, Jul 2021

Licenses & Certifications

1. **Hunter - Windows Disk Image Forensics** - CyberDefenders (Jan 2022)
2. **C for Everyone: Programming Fundamentals** - Coursera (Aug 2020)
3. **COVID-19 Contact Tracing** - Coursera (Aug 2020)
4. **Command Line in Linux** - Coursera (Aug 2020)
5. **Cyber Threats and Attack Vectors** - Coursera (Aug 2020)
6. **Git + GitHub** - Coursera (Aug 2020)
7. **Introduction to Cyber Security Tools & Cyber Attacks** - Coursera (Aug 2020)
8. **Open Source Software Development Methods** - Coursera (Aug 2020)
9. **Programming in HTML5 with JavaScript and CSS3** - Coursera (Apr 2020)

Volunteering

1. **Student Coordinator** — Sep 2019 - Nov 2022
   Ayudh Amritapuri

2. **Class Representative** — Feb 2020 - Oct 2023
   Amrita Vishwa Vidyapeetham

3. **Student Mentor** — Sep 2020 - Dec 2021
   Amrita Vishwa Vidyapeetham

4. **Student Social Responsibility Project Lead & Team Lead** — Nov 2021 - May 2022
   Amrita Vishwa Vidyapeetham

5. **House Captain & Student Volunteer** — Jun 2015 - Mar 2019
   Cambridge International School

Languages

1. **English:** Professional working proficiency
2. **Tamil:** Native or bilingual proficiency
3. **Malayalam:** Limited working proficiency