

Dr. Greetta Pinheiro

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ORCID

ResearchGate

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LinkedIn



Research, Teaching & Industry Experience

- May 2026 – Present **Assistant Professor** in Department of Computer Science, St. Stephen's College, University of Delhi, Delhi.
- Jan 2026 – May 2026 **Assistant Professor** in School of Artificial Intelligence, Sai University, Chennai, TN.
- Aug 2024 – Dec 2025 **Assistant Professor** in School of Computer Science Engineering and Technology, Bennett University, Greater Noida, UP.
- Aug 2018 – Jun 2024 **Research Scholar** in School of Computer and Systems Sciences, Jawaharlal Nehru University, New Delhi
- Sept 2017 – Mar 2018 **Guest Lecturer in Computer Science**, Vypin Government Arts and Science College, Elamkunnappuzha, Kerala.
- Aug 2016 – Apr 2017 **Research Intern**, Central Marine Fisheries Research Institute, Cochin, Kerala.
- Jun 2013 – May 2015 **Associate Programmer**, Bell Technolabs, Cochin, Kerala.

Education

- 2024 **Ph.D. in Computer Science and Technology**, from Jawaharlal Nehru University, New Delhi. Thesis title: *Machine Learning Based Predictive Analytics for Multi-Source Spatiotemporal Remote Sensing Big Data*.
- 2017 **M.Tech. Computer Science and Engineering**, from VIT University, Vellore. Thesis title: *Predictive Analysis of Marine Fish Landings Using Ensemble Learning Approaches*.
- 2013 **B.Tech. Computer Science and Engineering**, from CUSAT University, Cochin. Thesis title: *RFID based Library Management System*.

Areas of Specialization

- Artificial Intelligence, Machine Learning, Deep Learning, Generative AI, Data Mining, Spatial Computing, Spatial Analytics, Remote Sensing, Indigenous AI, Medical Image Analysis, and Intelligent Transportation.

Research Publications

Journal Articles

- 1 R. Singh, G. Pinheiro, M. Ajagalla, and T. Patel, "Neuro-fuzzy aggregation for multi-criteria recommender systems: Comparative study with fixed-weight averaging," *Procedia Computer Science*, vol. 283, pp. 3925–3933, 2026. DOI: 10.1016/j.procs.2026.06.453.
- 2 G. Pinheiro and S. Minz, "Granular computing based segmentation and textural analysis (grcsta) framework for object-based lulc classification of fused remote sensing images," *Applied Intelligence*, vol. 54, pp. 5748–5767, 2024. DOI: <https://doi.org/10.1007/s10489-024-05469-z>.

- 3 G. Pinheiro, I. H. Rather, A. Raj, S. Minz, and S. Kumar, "Image quality assessment of multi-satellite pan-sharpening approach: A case study using sentinel-2 synthetic panchromatic image and landsat-8," *EAI Endorsed Transactions on Scalable Information Systems*, 2024.  DOI: <https://doi.org/10.4108/eetsis.5496>.
- 4 G. Pinheiro, A. Raj, S. Minz, T. Choudhury, and J.-S. Um, "Inundation extend mapping for multi-temporal sar using automatic thresholding and change detection: A case study on kosi river of india," *Spatial Information Research*, pp. 1–15, 2023.  DOI: <https://doi.org/10.1007/s41324-023-00555-9>.
- 5 G. Pinheiro and S. Saraf, "Improved caesar cipher algorithm using multistage encryption," *International Journal of Computer Science and Technology*, vol. 8491, pp. 117–119, 2016.
- 6 S. Saraf, S. Dhingra, and G. Pinheiro, "Parallel algorithm for finding inverse of a matrix and its application in message sharing (coding theory)," *International Journal of Computer Applications*, vol. 975, p. 8887, 2016.  DOI: 10.5120/ijca2016908569.

Conference Proceedings

- 1 H. Soni, S. Thakur, Y. Ozha, and G. Pinheiro, "Unsupervised and supervised deep learning for anomaly-based intrusion detection: A comparative study of vae, gan, and xgboost," in *Next-Generation Networks and Deployable Artificial Intelligence*, D. Gupta, M. Pandey, A. Nigam, and R. B. Pachori, Eds., ser. Lecture Notes in Networks and Systems, NGNDAI 2025, vol. 1792, Cham: Springer, 2026.  DOI: 10.1007/978-3-032-15401-9_24.
- 2 M. Ajagalla, R. Shekhar, S. Maurya, R. Singh, and G. Pinheiro, "Improving fertilizer guidance for root vegetables using soil analysis and machine learning integration," in *Proceedings of the 16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT 2025)*, Presented, Scopus indexed, IIT Indore, India, 2025.
- 3 G. Pinheiro, R. Singh, K. Pandey, P. Sharma, and P. Sandhilya, "Comparative analysis of deep neural networks for cardiovascular risk prediction," in *Proceedings of the 16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT 2025)*, Presented, Scopus indexed, IIT Indore, India, 2025.
- 4 R. Singh, G. Pinheiro, and M. Ajagalla, "Comparative study of memory-based and model-based collaborative filtering for food recommendations," in *2025 IEEE International Conference on Computer, Electronics, Electrical Engineering & their Applications (IC2E3)*, Scopus indexed, 2025, pp. 1–6.  DOI: 10.1109/IC2E365635.2025.11166975.
- 5 G. Pinheiro and S. Minz, "Image quality evaluation of various pan-sharpening techniques using landsat-8 imagery," in *Machine Intelligence and Data Science Applications*, A. Ramdane-Cherif, T. P. Singh, R. Tomar, T. Choudhury, and J.-S. Um, Eds., Scopus indexed, Singapore: Springer Nature Singapore, 2023, pp. 391–403, ISBN: 978-981-99-1620-7.  DOI: https://doi.org/10.1007/978-981-99-1620-7_31.
- 6 G. Pinheiro and S. Minz, "Image quality assessment of spatiotemporal image fusion: A case study approach using landsat-8 and sentinel-2," in *Proceedings of the 43rd Asian Conference on Remote Sensing (ACRS 2022)*, Scopus Indexed, vol. 1, Ulaanbaatar, Mongolia: Asian Association on Remote Sensing (AARS), 2022, pp. 795–804, ISBN: 978-1-7138-6651-0.  URL: https://a-a-r-s.org/proceeding/ACRS2022/ACRS22_150.pdf.

Books and Chapters

- 1 G. Pinheiro and S. Minz, "Data sources and tools for mapping and prediction," in *Geohazards: AI and Machine Learning Geospatial Technologies*, Accepted for publication, Wiley, in press.

- 2 G. Pinheiro, R. Singh, M. Ajagalla, A. Mewada, and M. A. Ansari, "Advanced object detection and segmentation," in *Advanced techniques in computer vision: current research and emerging applications*, Accepted for publication, Bentham Science, in press.
- 3 G. Pinheiro, R. Singh, N. Keshari, A. Mewada, and M. A. Ansari, "Ai ethics in education: Challenges and future directions," in *Revolutionizing Education with Artificial Intelligence: Strategies and Applications*, Accepted for publication, Bentham Science, in press.
- 4 G. Pinheiro, R. Singh, P. Singh, and A. Soni, "Harnessing big data in medical imaging: Bridging technological advancements and real-world complexities," in *Smart Imaging: AI Solutions for Early Disease Detection*, Accepted for publication, Bentham Science, in press.
- 5 R. Singh, G. Pinheiro, I. H. Rather, A. Mewada, and M. A. Ansari, *Legal, Healthcare and Financial Applications of NLP*. Bentham Science, in press, Accepted for publication.
- 6 S. Dubey, G. Pinheiro, R. Singh, M. A. Ansari, and L. Kumar, "Advanced foundations and future trends in generative ai for visual media," in *AI-Generated Image and Video Synthesis*, A. Mewada, M. A. Ansari, S. Ahmad, and N. Singh, Eds., 2026.  DOI: 10.1002/9781394403158.ch07.
- 7 L. Kumar, B. Kumar, S. Ahmad, M. A. Ansari, and G. Pinheiro, "Content-aware convolutional vae for anime face synthesis," in *AI-Generated Image and Video Synthesis*, A. Mewada, M. A. Ansari, S. Ahmad, and N. Singh, Eds., 2026.  DOI: 10.1002/9781394403158.ch09.
- 8 A. Khan, M. A. Ansari, A. Mewada, G. Pinheiro, and A. S. Yadav, "Harnessing blockchain for biotechnology: Current applications, challenges, and future opportunities," in *Applications of Blockchain Technology*, A. Mewada, N. Singh, M. A. Ansari, and A. S. Yadav, Eds., Chapman & Hall/CRC, 2025, pp. 183–194.  DOI: 10.1201/9781003545620-19.
- 9 G. Pinheiro, A. Raj, and I. H. Rather, "Role of remote sensing and gis in sustainable computing practices," in *Green Computing for Sustainable Development*, N. Singh, T. Singh, A. Ramdane-Cherif, R. Tomar, and R. Choudhary, Eds., Auerbach Publications, 2025, pp. 66–84.  DOI: 10.1201/9781003471356-4.
- 10 R. Singh, G. Pinheiro, N. Keshari, A. Mewada, and M. A. Ansari, "Towards a unified framework for blockchain-iot integration: Architectural insights and research challenges," in *Applications of Blockchain Technology*, CRC Press, 2025, pp. 17–32.  DOI: 10.1201/9781003545620-3.

Skills

Languages	 Strong reading, writing and speaking competencies for English, Malayalam, Hindi.
Coding	 Python, R, C/C++, $\text{\LaTeX}$, ...
Databases	 MySQL, SQLite.
Web Dev	 HTML, CSS, XML, JavaScript, Flask (basic), Tkinter (basic).
Software and Tools	 Hadoop, OpenMP, Protégé, QGIS, ArcGIS, RapidMiner, VMware Workstation, NetBeans, Google Earth Engine, TerrSet, eCognition, Canva.
Misc.	 Academic research, teaching, consultation, training, WordPress, $\text{\LaTeX}$ typesetting and publishing.

Miscellaneous Experience Recent 6 years

Awards and Achievements

- 2023  **Best Paper Award**, in the EAI International Conference on Machine Learning and Applied Data Analytics (MLADA) 2023 held in Dehradun, India.

Miscellaneous Experience Recent 6 years (continued)

2022  **Outstanding Paper Award**, in the 43rd Asian Conference on Remote Sensing 2022 (ACRS2022) held in Ulaanbaatar, Mongolia.

2019  **UGC NET Qualified**, in June and December.

Professional Development and Certification

2026  **'4-Week Faculty Induction Programme (FIP)'**, UGC-Malaviya Mission Teacher Training Centre (MMTTC), Jawaharlal Nehru University (JNU), New Delhi. Completed as part of professional development in higher education teaching methodologies, research, academic administration, ICT tools, and institutional responsibilities.

 **'Federated Learning for Privacy-Preserving AI (FLPPAI-2026)'**, Faculty Development Program conducted by the School of Computer Science Engineering and Technology, Bennett University

2025  **'AI for Digital Readiness & Advancement (ADiRA) Programme'**, training programme led by DataLEADS under the AI Opportunity Fund: Asia-Pacific

 **'Artificial Intelligence: Concepts and Techniques'**, online course certificate by NPTEL

 **'NEP 2020 Orientation & Sensitization Programme'**, organized by Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi in collaboration with Bennett University, Greater Noida (U.P.)

 **'Applied Generative AI Certification'**, Faculty Enablement Program conducted by Infosys Springboard

 **'Artificial Intelligence For Disaster Resilience And Sustainable Development'**, Faculty Development Program conducted by JNU, New Delhi and certificate issued by AICTE Training And Learning (ATAL) Academy

2024  **'High Performance Computing for Medical Image Processing and Computer Vision'**, Faculty Development Program conducted by MNNIT Allahabad and certificate issued by AICTE Training And Learning (ATAL) Academy

 **'Applications of AI for Anomaly Detection', 'Fundamentals of Deep Learning', 'Building Transformer-Based Natural Language Processing Applications'**, certificates issued by NVIDIA

 **'Generative AI Mastery: From foundations to Applications'**, workshop conducted by IIIT Nagpur

 **'WEkEO- Monitoring #LandUse'**, workshop organized by Mercator Ocean International

2021  **'Remote Sensing and Digital Image Analysis', 'Basics of GIS'**. Online courses conducted by ISRO and IIRS.

 **'SAR Application for flood hazard mapping and monitoring'**, workshop conducted by ISRO and IIRS

 **'Active and Passive Satellite Data Analysis Using Cloud Computing for Surface Water/Flood Mapping'**, online course conducted by United Nations University Institute for Water, Environment and Health.

2020  **Cloud Native Security Conference - 'DevSecOps', 'Data Security'** certificates issued by IBM.

 **"Open Source Tools for Research"**, with Grade A+, Faculty Development Programme conducted by Teaching Learning Centre, Ramanujan College, DU.

2019  **'Going Places with Spatial Analysis'**, MOOC conducted by ESRI.

Professional Service

2026  **Distinguished Speaker** at the 3-Day Online Workshop on Quantum Computing and Quantum Key Distribution (QKD), Continuing Education Programme (CEP), IIT Delhi.

Miscellaneous Experience Recent 6 years (continued)

- 2025
- **Conference Reviewer**, International Conference on Artificial Intelligence and Sustainable Innovation (ICAISI-2025), organized by Suresh Gyan Vihar University, Jaipur
 - **SWAYAM - Module Instructor** for the MOOC titled 'AI-Powered CRM: From Fundamentals to Applications'.
 - **Journal Reviewer** for Journal of Supercomputing, Multimedia Tools and Applications, Sensing and Imaging, Journal of the Indian Society of Remote Sensing (JISRS), Sigma Journal of Engineering and Natural Sciences.
 - **Conference Track Chair; Session Chair** of 2nd International Conference on Artificial Intelligence and Emerging Technologies 2.0 (AISUMMIT 2025): Global AI Summit 2025
 - **Conference Technical Program Committee member** in 2nd international conference on Next-Generation Networks and Deployable Artificial Intelligence(NGNDAI) 2026, 1st international conference on Next-Generation Networks and Deployable Artificial Intelligence(NGNDAI) 2025; International Conference on Artificial Intelligence and Sustainable Innovation-2025 (ICAISI-2025)
- 2024
- **Conference Technical Program Committee member** in Global AI Summit 2024: International Conference on Artificial Intelligence and Emerging Technologies; 3rd International Conference on Advanced Communication and Intelligent Systems (ICACIS-24)
- 2023
- **Conference Reviewer** IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON)

Professional Memberships

- 2026
- **Individual Member** of International Society for Photogrammetry and Remote Sensing.
 - **Individual Member** of International Society for Photogrammetry and Remote Sensing Student Consortium.
 - **Professional Member** of Association for Computing Machinery (ACM)

Leadership Services

- **SPOC, SWAYAM local chapter**, Sai University
 - **Member, Research and Ethics Committee**, Sai University - Oversight of research integrity, ethical compliance, and institutional review processes
 - **Core Committee Member, Internal Quality Assurance Cell (IQAC)**, Sai University - contributing to NAAC Criterion 1 (Curricular Aspects)
 - **Member Secretary, Board of Studies**, School of AI, Sai University - Academic governance and curriculum oversight
- 2025
- **Course Coordinator**, Intelligent Model Design using AI, Bennett University
 - **Syllabus Revision Committee Member**, BCA, BTech, and MTech programs - Intelligent Model Design using AI, Bennett University
 - **Faculty Coordinator**, Attendance Monitoring System, Bennett University