KAIF AHMED R

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EDUCATION

Bachelors of Technology in Computer Science and Engineering - Artificial intelligence Oct 2021 – Present
Amrita Vishwa Vidyapeetham, GPA: 8.58 Chennai, TN

EXPERIENCE

Machine Learning Intern Apr 2024 – May 2024
Prodigy Infotech Chennai, TN

- Completed 5 projects encompassing machine learning models, including regression, segmentation, clustering, CNN, and RNN.
- Achieved accuracy exceeding 90% through data pre-processing, rigorous model training, and effective evaluation.

PROJECTS

Enhancing EEG Analysis for Rapid Brain Activities Detection Oct 2024 – Dec 2024
Amrita Vishwa Vidyapeetham Chennai, TN

- Executed a machine learning-based EEG classification system for detecting neurological abnormalities.
- Used CatBoost, CNN-LSTM, and EfficientNet models on 11,000 EEG spectrograms.
- The system achieved a KL-divergence score of 0.78 with CatBoost and an accuracy of 92.6 % with CNN-LSTM.

Enhancing Breast Cancer Diagnosis with Deep Learning-Based Image Classification Jun 2023 – Oct 2024
Amrita Vishwa Vidyapeetham Chennai, TN

- Achieved 97 % classification accuracy using an ensemble of VGG-16 and DenseNet, reducing breast cancer detection errors by 25
- Enhanced segmentation accuracy with U-Net and Attention U-Net, achieving a Mean IoU of 0.85 for precise tumor localization.
- Trained on 69,390+ samples from mammography and histopathology datasets, improving AI-assisted breast cancer diagnosis efficiency..

Deep-learning Models to Classify Allen Telescope Data Nov 2022 – Jan 2023
Amrita Vishwa Vidyapeetham Chennai, TN

- Extracted raw data from SETI, transforming signals into visual spectrograms.
- Employed various CNNs, ensemble models and classifiers to enhance image classification accuracy for 8 distinct signal types.
- Achieved 91.44 % accuracy, comparing hybrid model performance with previous models, and identified key improvements.

Alzheimer's Detection using Deep Neural Networks Mar 2022 – May 2022
Amrita Vishwa Vidyapeetham Chennai, TN

- Executed three deep learning models (2-CNN and 1-RNN) and 1-SVM Classifier, achieving 93.22% accuracy in classifying different stages of Alzheimer's (Mild Demented, Moderate Demented, Non Demented, Very Mild Demented).

PUBLICATIONS

Sentiment-Driven Predictive Models for Nifty 50 Stock Market Fluctuations Aug 2024
  2024 IEEE International Conference on Information Technology, Electronics and Intelligent Communication Systems (ICITEICS), Bangalore, India, 2024, pp. 1-8, DOI: 10.1109/ICITEICS61368.2024.10625537.

Generalized Deep-learning Models to Classify Allen Telescope Data Nov 2023
  S. S et al., 14th International Conference on Computing Communication and Networking Technologies (ICCCNT), Delhi, India, 2023, pp. 1-6, DOI: 10.1109/ICCCNT56998.2023.10306700

COURSES and CERTIFICATIONS

- AWS Cloud Practitioner Essentials – *Amazon* Apr 2024 – May 2024
- Amazon ML Summer School 2023 – *Amazon* Sep 2023 – Oct 2023
- People and Soft Skills for Professional and Personal Success – *Coursera* Sep 2023 – Oct 2023
- Microsoft Machine Learning Challenge – *Microsoft Learn* Jul 2023 – Aug 2023

SKILLS

- Machine Learning, Deep Learning, Speech Recognition, Natural Language Processing
- **Programming:** Python, Java, C, C++, MATLAB, SQL
- **Tools & Technologies:** TensorFlow, PyTorch, Fusion360, Flutter, Arduino, Figma, Git, GitHub

VOLUNTEER EXPERIENCE

Event Organiser - AMCFOSS Dec 2022 – Present
Amrita Vishwa Vidyapeetham Chennai, TN

- Orchestrated 10 events, increasing attendance by 40% through effective communication strategies.
- Mentored effectively, leading to a 50% surge in successful mentee events.

School People Leader Oct 2018 – Apr 2019
Narayana e-Techno School Chennai, TN

- Organized 10+ initiatives as School People Leader, fostering a 15% increase in overall student engagement.
- Promoted engagement in 4 extracurricular activities, contributing to a vibrant school culture.
- Collaborated with 20+ faculty and students, ensuring a cohesive learning environment.