Muramuttla Harshitha

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Education

Amrita Vishwa Vidyapeetham **Oct 2021 – Present**
Bachelor of Technology in Computer Science-Artificial Intelligence Engineering | CGPA-7.8/10 *Chennai, Tamil Nadu*

Narayana Jr. College **Jun 2019 – Apr 2021**
Intermediate Education in Mathematics and Sciences | Percentage: 89.4/1000 *Hyderabad, Telangana*

Triveni Talent School **Jun 2018 – Mar 2019**
Secondary Education in Mathematics and Sciences | CGPA-10/10 *Hyderabad, Telangana*

Technical Skills

Languages: Java, Python
Database: MySQL
Developer Tools: VS Code, Anaconda, Eclipse
Core Skills: OOPS, Data structures, Machine Learning, DBMS

Projects

Detection of Polysystic Ovary Syndrome using Ultrasound Images | *University Level* **June 2023 - Nov 2023**

- Designed and implemented a hybrid deep learning model to detect Polycystic Ovary Syndrome (PCOS) from ultrasound images, enabling early diagnosis and improving healthcare efficiency.
- Leveraged MobileNet with Transfer Learning, VGG with XGBoost, and ResNet with Random Forest for image classification, using TensorFlow, Keras, OpenCV, and a Streamlit-based web interface for deployment lowered false positive by 25% .
- Gained expertise in transfer learning, ensemble modeling, and medical imaging techniques, achieving 99.68% accuracy and showcasing the model's ability to assist healthcare providers with real-time, precise PCOS detection.

Emotion-Based Music Recommendation System | *University level* **Dec 2023 - April 2024**

- Developed an intelligent system to analyze facial expressions and recommend music playlists, enhancing user mood and reducing manual playlist customization efforts.
- Utilized Convolutional Neural Networks (CNN), VGG-16, and VGG with XGBoost for emotion detection, achieving up to 98% accuracy on CK+48 and FER2013 datasets. Integrated OpenCV for real-time facial analysis and Streamlit for a user-friendly web interface reducing deployment time by 40%.
- Delivered a dynamic music recommendation system that enhanced user engagement and achieved high accuracy in real-time emotion detection and playlist customization.

Online Quiz Application using MERN Stack | *University level* **July 2024 - Dec 2024**

- Constructed an advanced music recommendation platform with the MERN stack, driving personalized playlists for users while maintaining 95% accuracy in real-time emotional insights to boost interaction rates across all demographics..
- Streamlined backend operations by integrating MongoDB as a scalable database solution, which allowed the system to manage over 100 user interactions per day without performance degradation or downtime during peak hours.
- Achieved a 40% reduction in quiz management time by automating the creation, tracking, and delivery process, leveraging React.js and MongoDB for efficient data handling.

ADDITIONAL PROJECTS: Github

Certifications

- **IBM Professional Certificate** | People and Soft skills for Professional and Personal Success Specialization of 30 day course
- **Fundamentals of Java** | Great Learning
- **Java Fullstack Development** | Udemy (Ongoing)

Achievements

- Ranked in Top 10 at VIT Chennai Hackathon by optimizing data processing pipelines, reducing response time by 30%.
- Led a team of 3 to develop a PCOS detection model, reducing project development time by 15% and achieving 99.68% accuracy.
- Presented research on Emotion-Based Music Recommendation System at IEEE's ICETITE 2024.