Akshaya J

+91-8248237536 | jakshaya0411@gmail.com | https://www.linkedin.com/in/akshaya-jayakumar-4b1b33251?utm_source=share&utm_campaign=share_via&utm_content=profile&utm_medium=ios_app | https://github.com/Akshaya324

Education

Vellore Institute of Technology — Bhopal, MP
B.Tech in Computer Science and Engineering with spec. in Health Informatics – 8.42 CGPA — *Sept 2022 – Jul 2026*

Aditya International School — Coimbatore, TN
Class XII – 94.8% — *Apr 2020 – May 2021*

Sri Nachammal Vidyavani — Tirupur, TN
Class X – 90.8% — *Apr 2018 – May 2019*

Technical Skills

Programming Languages: Java, JavaScript ; **Core Concepts:** OOPS, Operating Systems, Computer Networking, Analytical Problem Solving ; **Web Technologies:** HTML, CSS,JavaScript,React.js **; Databases:** SQL ; **Cloud:** AWS ; **Tools & Software:** MATLAB, Simulink, MS Excel, Canva ; **Testing**: Debugging & Testing

Projects

Diabetes Prediction Using ML Model — *May 2024 - Jun 2024*

- Utilized extensive health survey data sourced from across India for model training and validation.
- Achieved a predictive accuracy of over 90% **using ensemble and kernel-based methods**.
- Implemented and compared the performance of algorithms including **Random Forest and Support Vector Machines (SVM).**
- Optimized model hyper parameters and selection criteria to enhance predictive performance and reliability.
- Demonstrated the practical application of ML for early disease detection and public health planning.

Water Quality Prediction Using ML Models — *Dec 2023 - Feb 2024*

- Developed supervised learning models to classify water sample safety, employing algorithms such as Random Forest and **Gradient Boosting** for optimal accuracy.
- Utilized **Python, Pandas, and Scikit-learn** for **comprehensive data preprocessing, feature engineering, and model training, improving predictive performance by 15%.**
- Presented results during a university showcase with a focus on real-world impact, effectively communicating technical findings to a non-technical audience. Engineered key features from chemical property data to better capture patterns related to contamination levels.

Facial Emotion Recognition and Detection — *May 2024 – Dec 2024*

- Developed a real-time facial emotion recognition system using a **CNN-based** deep learning model trained on the FER2013 dataset, achieving 96.83% test accuracy.
- Integrated **OpenCV** for live face detection and preprocessing, enabling dynamic emotion classification from webcam feeds for interactive applications.
- Contributed to model validation by testing on external images, documenting the pipeline, and ensuring practical usability and scalability.

Certificates

- Introduction to Artificial Intelligence-NPTEL, **IIT MADRAS** I Jan - Apr 2024
- HTML, CSS & JavaScript — Coursera (**Johns Hopkins University**) I Nov-Dec 2023
- Fundamentals of Al & ML — **VITyarthi** I May 2023
- MERN Fullstack — **Ethnus**I Apr 2025

Achievements

NPTEL, IIT Madras: Was one among the 4 students in my branch to get certified with this certificate in my university.
TCS CodeVita S'12: Participated in the first round among a competitive pool of global participants.
Actively participated in social and community service initiatives, contributing to awareness programs while developing teamwork and communication skills.