Alkesh Shukla

+91-9569779290 shuklalkesh@gmail.com www.linkedin.com/in/alkesh-shukla https://github.com/shuklaAlkesh
LeetCode Geeks for Geeks AlkeshXperience Portfolio

Education

Indian Institute of Information Technology Sri City — Chittoor, Andhra Pradesh
B.Tech in Electronics and Communication Engineering. ***Current CGPA: 8.26*** — *Dec 2021 - Jul 2025*
St. Joseph International School, Jhalawar, Kota — Rajasthan, India
Higher Secondary Education (Class: 12th). ***Percentage: 88.6*** — *Mar 2019 - Jul 2020*

Experience

Hindustan Aeronautics Limited — Korwa, Uttar Pradesh
Software Engineering Intern — *Jun 2023 - Aug 2023*

- Designed and developed software tools to optimize assembly workflows for SU 30K aircraft, enhancing efficiency and ensuring compliance with quality standards.
- Created and implemented software models to simulate aviation system performance, including the Optolocator System (OLS) and UAVs, enabling data-driven decision-making and precision testing.

Projects

CharchaHub Live Project ↑ — MERN Stack
Technologies Used: HTML | CSS | JavaScript | Node.js | React.js | JWT | WebSockets | MongoDB — *Aug 2024 - Sep 2024*

- Designed CharchaHub, a real-time chat application that supports group and personal chats, designed to facilitate seamless interactions using Express.js, Node.js, and React.js.
- Integrated secure JWT authentication, encrypted messaging with WebSockets, and efficient file handling using Multer, allowing users to easily upload, download, and manage images and files.
- Utilized MongoDB for scalable data storage, Zustand for smooth state management, and structured API calls with Axios, optimizing performance, and enabling smooth user interactions across devices.

MRI-Based Brain Tumor Detection System — Pattern Recognition
Technologies Used: Python | ANN | CNN | SVM | Logistic Regression | MobileNetV2 — *Sep 2023 - Dec 2023*

- Created an advanced MRI-based Brain Tumor Detection System using MobileNetV2 for precise tumor detection.
- Integrated and benchmarked multiple machine learning models to improve detection accuracy, with results: CNN (87. 5%), SVM (87. 4%), logistic regression (82. 85%), ANN (31. 64%) and a hybrid ANN + MobileNetV2 model that achieves the highest accuracy at 90.2%.
- Applied wavelet transformations for enhanced feature extraction, enabling precise tumor pattern recognition and advancing AI-driven healthcare diagnostics.
- Demonstrated expertise in model selection, hyperparameter tuning, and integrating pretrained networks to enhance diagnostic accuracy, contributing to improved healthcare outcomes.

Hospital Management System — Object-Oriented Programming
Technologies Used: C++ | SQLite3 — *Sep 2022 - Oct 2022*

- Implemented a C++ hospital management system that tracks records for doctors, patients, staff, and pharmacy bills, including admissions, discharges, and bed availability.
- Used Object-Oriented Programming to create a modular, user-friendly system with a secure SQLite database and role-based access for administrators and receptionists, enhancing data handling and operational efficiency.

Skills Summary

Languages & Databases: Proficient in C++, Python, C, SQL, MySQL, SQLite3, MongoDB.
Web Development: HTML5, CSS3, JavaScript, React.js, Node.js, Express.js, REST APIs.
Coursework: Object-Oriented Programming (OOP), Operating Systems, DBMS, Computer Networks.
Tools: Visual Studio Code, Ubuntu, Jupyter Notebook, Git, GitHub, Docker, Kubernetes.

Extracurricular Activities

- Elevated IOTA Club reach by conducting technical workshops as part of the Public Relations team at IIIT Sricity.
- Solved more than **900+** Data Structures and Algorithms Problems.
- Proposed a research paper on **Convergence of Molecular and terahertz communications in IoNT for the detection of infectious diseases** at IEEE, focusing on nanotechnology and terahertz for the early detection of diseases.

Certifications

- Successfully completed *The Complete 2023 Web Development Bootcamp* on Udemy. **View Certificate**