

Varalakshmi Elubandi

elubandivaralakshmi1702@gmail.com | +91 7396138481 | India | [LinkedIn](#)

Summary

Enthusiastic and self-motivated Computer Science Engineering graduate with strong knowledge of Python, SQL, and Web Development. Experienced in developing advanced AI, Machine Learning, and enterprise-level applications with a focus on backend development, REST APIs, and modern database management. Quick learner with problem-solving abilities, passionate about building intelligent software solutions and contributing effectively in a professional team environment.

Technical Skills

Languages: Python, SQL, Java
Frontend: HTML5, CSS3, JavaScript
Backend & APIs: REST APIs, Flask, Streamlit
AI Tools: Data Preprocessing, OCR, OpenAI API Integration, RAG Pipeline, GPT-4o, OpenAI Text Embedding 3
Protocols & Tools: ONVIF, RTSP, HTTP APIs, NVR/DVR Integration, Azure AI, JSON-RPC
Databases: MySQL, Oracle, ChromaDB
Concepts: DSA, OOP, API Development
Soft Skills: Communication, Teamwork, Problem Solving, Time Management, Presentation

Professional Experience

- Software Intern, Efftronics Systems PVT Ltd** 12/2025 – 06/2026 | Mangalagiri
- Worked with surveillance and monitoring systems including NVRs, DVRs, drones, tablets, and SIM-enabled devices.
 - Developed Python scripts for device and camera monitoring solutions.
 - Developed a custom knowledge-based chatbot using RAG, OpenAI Text Embedding 3 Large, ChromaDB, and MySQL.
 - Designed and implemented a **Duplicate Ticket Detection System** using OCR, ChromaDB, MySQL, Oracle DB, and GPT-4o to identify duplicate transportation tickets and reduce false claims.
- AI and ML Intern, Kairos Technologies** 05/2025 - 07/2025 | Visakhapatnam
- Developed a Machine Learning-based Fake News Detection System utilizing Natural Language Processing (NLP) techniques, feature engineering pipelines, and classification architectures.
 - Architected an AI-powered conversational chatbot interface by constructing backend API integrations in Python to process and parse user intents dynamically.

Projects

- HemoScan — Non-Invasive Hemoglobin Estimation:**
- Technologies: Python, Flask, EfficientNetB0, TensorFlow, OpenCV, SQLite
- Developed an AI-powered web application to estimate hemoglobin levels from fingernail images using deep learning.
 - Implemented an EfficientNetB0-based CNN model with OpenCV image preprocessing and nail segmentation.
 - Built a hemoglobin regression and WHO anemia classification system for risk assessment.
 - Developed Flask backend with user authentication, prediction history, and admin dashboard.
- Real-Time WhatsApp Clone with Voice-to-Text:**
- Technologies: React, TypeScript, Express.js, WebSockets, PostgreSQL, OpenAI API
- Developed a real-time messaging application supporting text and voice communication.
 - Integrated voice-to-text conversion for automatic transcription of voice messages.
 - Implemented user authentication, media sharing, and real-time messaging functionality.
 - Designed responsive user interfaces and secure backend APIs for seamless messaging.
- Local Guide Application:**
- Technologies: HTML, CSS, JavaScript, OpenStreetMap API
- Developed a location-based recommendation application that identifies nearby places using latitude and longitude coordinates.
 - Implemented category-based filtering to display nearby hospitals, restaurants, parks, hostels, and tourist attractions.
 - Integrated OpenStreetMap Nominatim API to fetch location and place information.

Education

- Bachelor of Engineering, Andhra University College of Engineering for Women** 11/2022 - 05/2026 | Visakhapatnam, AP
Computer Science Engineering
CGPA – 8.67
- Intermediate, Aditya Junior College** 06/2020 - 05/2022 | Kakinada, AP
MPC
Marks - 925

Certificate

- NPTEL – Programming in Java (Jul–Oct 2023)
- AI Workshop by Mudunuru Dreams Academy
- Web Development Workshop by Edumoon