europass

Lokeshraja Balaji

Nationality: Indian **Date of birth:** 06/12/2003 **Place of birth:** Ariyalur, India

Gender: Male **Phone number:** (+91) 6381210453

Email address: premalok2003@gmail.com

WhatsApp Messenger: +91 6381210453

LinkedIn: https://www.linkedin.com/in/lokeshraja-b-624b7b259/

Home: A1,KVM Sudharsan South devi Street, Srirangam, 620006 Tiruchirapalli (India)

ABOUT ME

I'm an enthusiastic Information Technology graduate with a deep interest in solving real-world problems through code. With a strong foundation in software development, data structures, and algorithms, I've developed scalable applications using Java, Python, and SQL, and explored applied machine learning through hands-on projects. I'm a fast learner, curious by nature, and enjoy working at the intersection of technology and innovation. Beyond coding, I thrive in collaborative environments and am always eager to explore new ideas that push the boundaries of what's possible.

EDUCATION AND TRAINING

B.Tech Information Technology

SASTRA University [2021 – 2025]

City: Thanjavur | **Country:** India | **Website:** https://www.sastra.edu/ | **Final grade:** 7.01/10

Higher Secondary

Chinmaya Vidyalaya Matric Higher Secondary School [2019 – 2021]

City: Tiruchirappalli | **Country:** India | **Website:** https://cvschooltrichy.org/

Secondary School

Chinmaya Vidyalaya Matric Higher Secondary School [2017 – 2019]

City: Tiruchirappalli | **Country:** India | **Website:** https://cvschooltrichy.org/

LANGUAGE SKILLS

Mother tongue(s): Telugu

Other language(s):

English

LISTENING C1 **READING** C2 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

Tamil

LISTENING C2 **READING** C2 **WRITING** C2

SPOKEN PRODUCTION C2 **SPOKEN INTERACTION** C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Programming Languages

Java (computer programming) / Python (computer programming) / JavaScript / PHP / C++

Frontend Development

HTMl & CSS

Backend Development

Node.js / Express / Express

Databases

MySQL / Mongodb / Mongoose

Frameworks & Libraries

React Framwork / Numpy, pandas, matplotlib, Tensorflow

PROJECTS

[08/01/2025 – 08/05/2025]

A NOVEL APPROACH TO HEART DISEASAE PREDICTION USING ENSEMBLE LEARNING AND FEATURE SELECTION

Designed and implemented a high-performance heart disease prediction model by integrating ensemble deep learning techniques (MLP, CNN, BiLSTM) with advanced feature selection algorithms (MRFO, DOPOA, HHO). The project emphasized robustness and accuracy through extensive data preprocessing, feature clustering using K-Modes, and soft voting strategies.

Key Contributions:

- Built a full machine learning pipeline from data ingestion to model evaluation.
- Applied and compared multiple bio-inspired optimization algorithms for feature selection.
- Evaluated model performance using metrics such as ROC-AUC, accuracy, and confusion matrix, ensuring reliability through cross-validation.
- Achieved significant improvement in prediction accuracy by combining models and refining input features.

Link: https://github.com/Lok0788/Heart-Disease-prediction-

[12/01/2024 – 16/04/2024]

Image Steganography with Bald Eagle Optimization

Developed a secure and efficient image steganography system that embeds sensitive information within digital images while maintaining high imperceptibility. The project leveraged the Bald Eagle Optimization (BEO) algorithm to enhance the embedding process by optimizing pixel selection for minimal visual distortion and maximal data security.

Key Contributions:

- Implemented Least Significant Bit (LSB) steganography integrated with BEO for optimal embedding locations.
- Improved payload capacity and image quality (measured using PSNR and SSIM) through intelligent feature selection.
- Designed an end-to-end pipeline for encoding, encryption, decoding, and decryption of secret messages.
- Conducted extensive testing to evaluate robustness against common image processing attacks and ensured data recovery accuracy.

Link: https://github.com/Lok0788/Image-Encryption-project

[13/05/2025 – 10/06/2025]

Attendance & Salary Management System

Designed and developed a desktop-based application to automate employee attendance tracking and salary management within an organization. The system ensures efficient HR operations by integrating real-time attendance monitoring with automated salary calculations, leave deductions, and administrative controls.

Key Contributions:

- Developed user-friendly GUI using Java Swing for admin login, employee records, and attendance logging.
- Connected the front end with MySQL database using JDBC to manage persistent employee and salary data.
- Implemented logic for salary generation based on predefined leave policies and attendance records.
- Enabled efficient data retrieval and report generation for payroll and HR audits.