SRINIKHA SARAVANAN

+91 9363018288 — srinikha712006@gmail.com — linkedin.com/in/srinikha-s-7a5ab428a

PROFESSIONAL SUMMARY

Motivated Computer Science Engineering Undergraduate with strong foundations in Programming, Mathematics, and Problem-Solving. Experienced in building Database-Driven Applications, applying Machine Learning for Healthcare Prediction, and implementing Embedded Systems and Digital Image Processing solutions. Passionate about developing efficient, real-world systems and continuously expanding technical expertise.

EDUCATION

B.Tech in Computer Science Engineering 2023 – Ongoing
Vellore Institute of Technology, Vellore, Tamil Nadu
CGPA: 9.16 / 10

RELEVANT COURSEWORK

Structured and Object-Oriented Programming, Data Structures and Algorithms, Web Programming, Design and Analysis of Algorithms, Theory of Computation, Microprocessors and Microcontrollers, Database Systems, Operating Systems, Artificial Intelligence, Compiler Design, Cloud Architecture Design

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, MATLAB, R
Web Technologies: HTML, JavaScript
Databases: MySQL, SQL
Concepts: Machine Learning, Digital Image Processing, Embedded Systems

SOFT SKILLS

Time Management, Problem-Solving, Documentation, Team Collaboration, Presentation Skills, Leadership

PROJECTS

Adaptive Multi-Modal Fusion for Camouflage-Breaking Target Detection (Ongoing)

- Designed a multi-modal image processing pipeline combining RGB, thermal, and temporal data.
- Implemented preprocessing and enhancement using filtering, histogram equalization, and texture disruption.
- Performed segmentation using thermal residue mapping and micro-motion signature tracking.
- Extracted features using LBP, GLCM, optical flow, and thermal anomaly analysis.
- Integrated CNN and YOLO for object localization and detection.

Disaster Misinformation Containment System (DMCS) Ongoing

- Designed an NLP-based system to detect and contain panic-inducing and false disaster-related messages.

- Implemented panic keyword detection, sentiment analysis, and authority impersonation detection.
- Developed a risk scoring and classification engine to label content as Safe, Suspicious, or Dangerous.
- Followed Agile Scrum model with iterative development, testing, and human-in-the-loop moderation.
- Built modular architecture emphasizing scalability, security, and transparency.

Early Prediction of Heart Failure using Machine Learning 2024

- Built machine learning models to predict myocardial infarction.
- Evaluated Logistic Regression, SVM, KNN, and Random Forest.
- Identified Random Forest as the best-performing model based on accuracy and speed.

Food Production Management Database Apr 2023

- Designed and implemented a MySQL-based database for managing food production, storage, and sales.
- Developed Python modules for data entry, retrieval, and invoice generation.
- Automated inventory tracking and billing to improve operational efficiency.

RESEARCH EXPERIENCE

Early Prediction of Heart Failure – Research Paper 2024

- Co-authored a research paper on machine learning approaches for cardiac risk prediction.
- Focused on model evaluation and healthcare impact.

CERTIFICATIONS

IBM Generative AI – Adroit Tech Powered (2025)