Sachcith G N

sachcith@gmail.com GitHub LinkedIn

EDUCATION

B.Tech in Computer Science and Engineering (AI Specialization)
Amrita Vishwa Vidyapeetham, Coimbatore *2024–2028*
CGPA: 9.30 (Sem 2), 8.98 (Sem 1)

B.S. in Data Science and Applications (Concurrent)
IIT Madras *2024–2028*
CGPA: 8.00 (combined over 3 semesters)

TECHNICAL SKILLS

- **Languages:** Python, C++, MATLAB, HTML, CSS, JavaScript, SQL
- **Frameworks & Tools:** Flask, NumPy, OpenCV, Git, LaTeX, Linux, pandas, matplotlib
- **Concepts:** Algorithms, Dynamic Programming, Deep Learning, Edge Detection, Backend APIs, Computer Vision
- **Other:** Competitive Programming (CF rating: 1056), Fast typing (107 WPM), Strong debugging

PROJECTS

- **Canny Edge Detector (from scratch in MATLAB)**
  Implemented all stages manually: Gaussian smoothing, Sobel edge detection, non-maximum suppression, double thresholding, and hysteresis. Each output layer visualized separately to build intuition.
- **YOLO-inspired Fault Classifier (Scratch Build in MATLAB)**
  Designed a YOLOv11-style image classifier using custom CNN layers, He initialization, Leaky ReLU, and spatial pyramid pooling. Developed entire model from scratch without deep learning libraries.
- **3D DP Visualizer & Hospital Management (Flask + Python)**
  Built a complete hospital simulation system with dynamic room allocation and bed prioritization using 3D DP logic. Frontend visualizes DP tables; backend powered by Flask and custom logic in Python.
  Live Demo: Hospital Management System

PUBLICATIONS & RESEARCH

- **IEEE Transactions on Reliability**
  Paper under review: *YOLOv11-based Deep Reliability Prediction for Visual Components*, submitted May 2025.
- **IEEE PES Conference 2026 (upcoming)**
  Paper submitted and awaiting decision for presentation in January 2026.

ACHIEVEMENTS & INTERESTS

- Regularly solve A/B/C level problems on Codeforces (Rating: 1056).
- Known for rapid prototyping: end-to-end systems built within 1 week.
- Passionate about building from scratch, visualizing algorithms, and contributing to open source.