Swathi N Pai

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EDUCATION

B.E. in Computer Science - CGPA: 9.8   2022 – 2026
Sahyadri College of Engineering, Mangaluru
Pre-University (PCMB) - 98.8%   2020 – 2022
St. Agnes PU College, Mangaluru
High School - 95.3%   2019 – 2020
Pallavi Model School, Hyderabad

SKILLS

Languages:	C, C++, JavaScript,Python,HTML,CSS
Technologies/Frameworks:	React.js, Node.js,REST APIs, SQL, MongoDB, Express.js
Developer Tools:	Git, MySQL, GitHub, Postman
Social Skills:	Communication, Leadership, Decision-making, Teamwork
Spoken Languages:	English, Hindi, Konkani, Kannada, Japanese

PROJECTS

DeepLock – A multimodal Deepfake Detection System   *April 2025 – Present*
Python, Flask,PyTorch, Blockchain

- Built a multi-modal deepfake detection system capable of identifying forged content in images, videos, audio clips, and handwritten signatures. Leveraged CNNs for images/signatures, RNNs for audio, and frame-level analysis for tampered videos.
- Implemented a blockchain-backed verification layer to immutably log detection results and preserve media authenticity across stakeholders.
  Used Ethereum smart contracts to store hashed verdicts and timestamps for auditability.
- Achieved high accuracy through transfer learning, OpenCV preprocessing, and custom loss functions.

AshaAid – A Village Health Tracker   *May 2025 – Jun 2025*
React.js, Node.js, Express.js, Mongodb

- Developed a MERN stack web application with role-based access for ASHA workers, doctors, and admins to digitize rural health visit records.
- Logged visits,integrated geo-tagging and automated follow-up alerts, improving maternal care tracking by 40%.
- Enabled PDF exports, follow-up alerts, and interactive dashboards to support public health reporting and outreach planning.

NeighBridge – A Smart Neighborhood Management System   *Oct 2024 – Dec 2024*
React.js, Node.js, Express.js, MySQL

- Developed a full-stack neighborhood management platform with role-based login for admins and residents using React.js and Node.js.
- Implemented features like event creation, announcements and real-time contact messaging.
- Designed MySQL database schema to support elections, amenity booking, and user communications with optimized relational queries.

ACHIEVEMENTS AND CERTIFICATIONS

- **TechVision 2025 – 2nd Prize Winner** (April 2025)
  Developed a multimodal AI system for detecting deepfakes in images, video, audio, and signatures with planned blockchain integration for media authenticity.
- **Akrithi Fest – Research Symposium 1st Prize Winner** (Mar 2025)
  Presented a research paper on American Sign Language detection using AI, awarded for innovation and technical depth.
- **Devhost Hackathon 2024-Top 8 Finalist** (Nov 2024) Selected as one of the top 8 teams in Devhost Hackathon 2024 for developing an innovative tech solution under tight deadlines.