SATHWIK PAI

📞 7338179327 ✉ sathwik11112005@gmail.com 🔗 linkedin.com/in/sathwik-pai 🐙 github.com/Sathwikpai7

Education

RV College Of Engineering — Sep. 2023 – Aug 2027
B.E in Information Science and Engineering—GPA: 9.38 as of 4th Sem — Bengaluru, Karnataka

Excellent Science and Commerce PU College — 2021-2023
Pre-University (PCMC) — Percentage: 97.5% — Mangaluru, Karnataka

Projects

Smart Fridge System | *ESP32, MQ-6, DHT11, Ultrasonic Sensor, Node.js, React.* — **2025**
- Built an IoT-enabled smart fridge using ESP32 to monitor gas, temperature, humidity, and inventory levels.
- Triggered spoilage alerts using MQ-6 gas sensor and tracked item removal with ultrasonic sensing.
- Visualized real-time sensor data on a React dashboard via WebSocket connected to a Node.js backend.
- Integrated Nodemailer to send automated email alerts (e.g., gas leak, high temperature) to users for proactive food management.
- **GitHub:** github.com/Sathwikpai7/smartfridge

Network Routing with Ant Colony Algorithm | *Python, React, TypeScript.* — **2025**
- Simulated adaptive routing using Ant Colony Optimization for efficient traffic distribution.
- Built a React dashboard for real-time route visualization and network state monitoring.
- Added chatbot interface to explain algorithm behavior and assist users interactively.
- Optimized router placement using centroid-based logic to reduce hop count and congestion.
- **GitHub:** github.com/ajayrm04/Ant_Colony_Algorithm_EL

O(1) Insight | *Python, Axios, YoCode , JSON Parsing ,Node.js, Google Gemini API* — **NOV-DEC 2024**
- A VS Code extension using *YoCode* and *TypeScript* to analyze and predict time and space complexity across multiple programming languages.
- Integrated Gemini's Generative Language API via Axios for real-time code analysis and complexity metrics.
- Applied prompt-engineering techniques to ensure precise and consistent extraction of time and space complexity .

Technical Skills

Languages: C++ , Python, C , JavaScript ,TypeScript , HTML/CSS
Frameworks and Database: React.js , Node.js , Tailwind CSS , SQL , Arduino , MongoDB,CrewAI

Achievements

Top 2 – IPL Data Analysis Hackathon RVCE
An IPL QUIZ and Analysis Hackathon at RV College, using Python, pandas, and Matplotlib for analysis and visualization..

Top 3 – RoTech Hackathon, BMSCE
*Built **Smart Match**, an AI hiring platform using LLMs with prompt-based filtering and reward-based feedback system (Team).*

Top 10 – Codethon DSA Contest, BMSCE
Ranked as one of the top teams in a college-level DSA problem-solving competition focused on algorithms and data structures.

Coding Profiles

LeetCode: leetcode.com/u/sathwik_pai — 250 + problems solved,

Codeforces: codeforces.com/profile/Yuyutsu07 — Max Rating: 1092

Leadership & Extracurricular

Alaap, RVCE – Member of the college's official singing club.

Coding Club, RVCE – Active member participating in coding sessions and contests.