

Ram Barabde

Student builder focused on embedded systems, AI, and privacy-first tools

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SUMMARY

12th-grade student interested in AI systems, embedded computing, and building practical tools that are accessible, private, and useful.

PROJECTS

NeoScreen | Python, image analysis, local processing

- Built a threshold-based software prototype for jaundice risk screening from eye images.
- Lets the user upload an eye photo, click Analyze, and receive risk analysis locally on the device.
- Attempts to isolate the eye region and sclera, then uses YCrCb-based color analysis for risk assessment.
- Designed to run without internet for privacy-focused use cases.
- Developed with AI-assisted coding support.

ESP32 Chat Portal | ESP32, WebSockets, local networking, IDE

- Built an ESP32-based offline communication system for local, infrastructure-free messaging.
- Designed for classroom, event, and privacy-focused use cases.
- Explored ESP32 networking and WebSocket-based communication in a self-contained setup.

ACHIEVEMENTS

- 1st Prize, IdeaSprint 2026, IISc Bangalore; won against participants including BTech and MTech students.
- Awarded INR 25,000 for the presentation and idea pitch.
- Public speaking / presentation experience at IISc Bangalore.

PROGRAMS & LEARNING EXPERIENCE

Google for Startups - Startup School: Prompt to Prototype

- Explored rapid AI prototyping using Gemini, Google AI Studio, Imagen, and NotebookLM.
- Learned how to turn early ideas into AI-powered prototypes.

Scaler School of Technology

- Learned fundamentals of artificial intelligence and computer science.
- Built a simple portfolio website and integrated an AI chatbot for hands-on practice.
- Explored AI avatars, video storytelling, and design thinking for small innovation ideas.

TECHNICAL SKILLS

Programming: Python (basic), C/C++ (code reading) | Embedded Systems: ESP32 and Arduino | Tools: GitHub, web hosting, Arduino IDE, Claude by Anthropic | Interests: AI, local-first software, privacy-focused tools

EDUCATION

- Class 11 and 12th, Rahul International School, Mumbai
- Ryan International School Kandivali, Nov 2019 - Mar 2025