ARYAN PANWAR

Embedded Engineer | IoT Developer | AI & Product Builder

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PROFESSIONAL SUMMARY

Final-year ECE student with proven experience in Embedded C/C++, Internet of Things (IoT) firmware development, and industrial instrumentation. Shipped two production-level products to real users — a privacy-first Android AI app and a multi-language open-source voice platform. Skilled in Agentic AI, LLM APIs, GenAI tools, and full product lifecycle management. Seeking an Embedded Engineer role to apply firmware, hardware, and AI expertise in a real-world engineering environment.

TECHNICAL SKILLS

Languages: Embedded C/C++, Python, Arduino (C/C++), FastAPI

Microcontrollers: Arduino (ATmega328P), 8051, ARM Microcontroller

Protocols & Hardware: UART, I2C, HART Protocol, Sensor Integration, Circuit Design, Prototyping, PCB Design

AI/ML: Machine Learning, LLM APIs, Model Fine-tuning, LLMOps, Prompt Engineering, On-Device AI, Generative AI Development

GenAI Tools: GitHub Copilot, Cursor, Windsurf, Replit, Lovable, Bolt.diy, Stitch, HeyGen, ElevenLabs, Google AI Studio

Backend & Infra: Supabase, Firebase, Railway, GitHub Pages, Vercel, Git, GitHub, PostHog, N8n

Dev & Industrial: Arduino IDE, PlatformIO, LabVIEW, MATLAB | Instrumentation, Calibration (RTD/Pressure/Flow), SIS, HART

Other: Product Management, Product Strategy, SEO, APIs, Vibe Coding, AI Voiceover, Logical Reasoning

EDUCATION

B.Tech — Electronics & Communication Engineering   July 2022 – June 2026
MIET Meerut, Uttar Pradesh | CGPA: 7.00 / 10

Senior Secondary (Class XII) — Science, CBSE   2022
Shardein School, Muzaffarnagar | 62.00%

WORK EXPERIENCE

Instrumentation Engineering Intern — Indian Potash Limited, Muzaffarnagar, UP   June – August 2025
- Calibrated RTD Pt100 sensors, pressure transmitters, and electromagnetic flowmeters using HART communicators and dead weight testers in live process control environments
- Executed field testing and troubleshooting of industrial instrumentation; acquired hands-on exposure to Safety Instrumented Systems (SIS) and Emergency Shutdown (ESD) protocols

PROJECTS

FitWardrobe — Privacy-First AI Stylist App   Web-Page | GitHub   Jan 2026 – Present
Android, On-Device AI, Supabase, PostHog, Vercel, GenAI Tools
- Launched production Android app (v1.0.1) with local-first privacy architecture and on-device AI; managed full product lifecycle — APK distribution, community growth (SEO), PostHog analytics, and roadmap

Mithivoices — Open-Source AI Voice Platform   GitHub   Dec 2025 – Present
Python, FastAPI, React, Piper TTS, Whisper STT, GitHub Actions
- Built open-source TTS/STT platform with 19 neural voices across 8 languages; released v0.2.0 with multi-LLM support; directed CI/CD pipeline and active contributor community

Wireless EV Charging System   GitHub   Sep – Nov 2025
Arduino, Embedded C, Inductive Power Transfer (IPT), IoT
- Developed Embedded C firmware achieving 95% vehicle positioning accuracy; engineered resonant IPT circuit with 85% energy transfer efficiency and emergency shutdown

Smart Staircase Lighting System   GitHub   Oct – Nov 2024
Arduino, Embedded C, IR Sensors, IoT Automation
- Designed motion-activated LED control system reducing energy consumption by 45% via intelligent IR detection and non-blocking millis() timing logic

More projects: github.com/Aryanpanwar10005 | Portfolio: aryanpanwar.in

AREAS OF INTEREST

Embedded Systems & IoT Firmware | Agentic AI & Large Language Models | Edge AI & On-Device Machine Learning | Clean Energy Technology (EV & Solar) | Full Product Lifecycle & Product Engineering | Data Analytics & Python Pipelines