Md Kaif

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SUMMARY

Electronics & Communication Engineering undergraduate with hands-on experience in embedded systems, PCB design, and IoT product development. Skilled in ESP32-based firmware and KiCad schematic/PCB layout, with a track record of taking hardware projects from concept to working prototype. Internship experience spans IoT engineering at IBM and applied research at Kantar, complemented by full-stack web development delivered for a live client project.

EDUCATION

Galgotias College of Engineering & Technology (AKTU Affiliated), Greater Noida, UP **2023 – 2027**
Bachelor of Technology – Electronics & Communication Engineering | CGPA: 7.8

Government Sarvodaya Vidyalaya, Delhi — Class XII (CBSE Board) | 89% 2021

Bal Vidya Model School, Delhi — Class X (CBSE Board) | 90.6% 2019

EXPERIENCE

IoT Intern — IBM (Remote) **September 2025 – November 2025**
- Completed a structured virtual IoT internship, applying circuit simulation and embedded design workflows using Tinkercad and KiCad.
- Designed and reviewed electronic schematics and PCB layouts as part of hands-on embedded systems learning modules.
- Documented design workflows and validated circuit behavior, strengthening schematic capture and PCB review skills.

Research Analyst Intern — Kantar (with NeoResearch), Gurgaon, Haryana (On-site) **May 2026**
- Supported Kantar's 5-State Election Counting Project, contributing to real-time election result tracking for a national election study.
- Conducted field research and collected primary data across assigned survey areas in Tamil Nadu constituencies.
- Collaborated with the research team at Kantar's DLF Cyber City office to ensure accurate, timely data collection and reporting.

PROJECTS

Smart Switch — ESP32-Based 4-Channel Smart Home Controller PCB **Sep 2025 – Present**
Individual Project | Role: PCB & Firmware Designer | Status: Ongoing | Tech: ESP32, KiCad, PCB Design, Embedded C | github.com/iamkaifpathaan/PCB-Design-of-Automation
- Designing a 4-channel ESP32 smart home controller PCB for 230V AC Indian wiring that installs behind existing switchboards, keeping wall switches functional alongside app control.
- Implementing dual manual/WiFi control via optocoupler-based switch sensing, with AC-DC isolation, 16A relays, and mains surge/fuse protection, laid out as a multi-layer KiCad PCB.

Alabuzer Perfumes — E-Commerce Website (Client Project) **Completed**
Individual Client Project | Role: Full-Stack Developer | Tech: JavaScript, HTML/CSS | github.com/iamkaifpathaan/alabuzer-frontend
- Built and deployed a full-stack e-commerce website for a real client, covering frontend UI and backend services.
- Implemented product catalog, cart, wishlist, and user authentication for a live production site.

Footstep Power Generation — Piezoelectric Energy Harvesting System **Oct 2025 – Nov 2025**
Team of 3 | Role: Hardware & Firmware Design | Status: Completed (Working Prototype) | Tech: ESP32, Piezoelectric Sensors, Embedded C/C++ | github.com/iamkaifpathaan/Footstep-Power-Generation
- Designed a piezoelectric footstep energy harvesting system that converts mechanical footstep pressure into stored electrical energy.
- Built ESP32-based real-time monitoring of step count, output voltage, and cumulative energy generated, displayed on an LCD.

Logic Power Supply — Regulated Logic-Level Power Supply **Completed**
Individual Project | Role: Circuit Design | Tech: Tinkercad, Circuit Simulation, Voltage Regulation
- Simulated a regulated 3.3V/5V logic-level power supply in Tinkercad, focusing on voltage regulation and component selection for microcontroller and sensor loads.

Home Automation System — Microcontroller-Based Device Control **Completed**
Team of 4 | Role: Hardware & Firmware Design | Tech: Arduino Uno R3, Tinkercad, Embedded C
- Built and simulated a home automation circuit enabling relay-based control of household appliances via microcontroller logic.

TECHNICAL SKILLS

Programming Languages: C, C++, Python, JavaScript, HTML/CSS
Embedded Systems: ESP32, Arduino Uno R3, Embedded C/C++, Firmware Development
PCB Design: KiCad (Schematic & Layout), Multi-Layer PCB Design, AC-DC Isolation Design
Electronics: Circuit Design, Schematic Capture, Analog & Digital Circuits
Databases & Version Control: PostgreSQL, MongoDB, Git, GitHub
Tools & Platforms: VS Code, Tinkercad, Arduino IDE
AI Tools: GitHub Copilot, Claude, ChatGPT, AI Prompt Engineering

CERTIFICATES

- Certificate of Internship – Research Analyst Intern, NeoResearch in collaboration with Kantar — 2026
- Virtual Internship – IoT (IBMCEP), IBM Developer Skills Network — 2025
- Introduction to IoT and Digital Transformation, Cisco Networking Academy (EdCreate Foundation) — 2025

ACHIEVEMENTS

- Completed IBM IoT Internship (PCB design, embedded systems) and a Kantar Research Analyst internship on a national election study; delivered a full-stack e-commerce site for a client and multiple ESP32/Tinkercad/KiCad embedded prototypes.

SOFT SKILLS

Team Collaboration, Problem Solving, Analytical Thinking, Time Management, Adaptability, Continuous Learning