

SAMIR MAKWANA

ELECTRONICS & COMMUNICATION ENGINEERING STUDENT AND COMPUTER ENGINEER

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Portfolio: makwana-samir-profileweb.lovable.app

SUMMARY

Electronics & Communication Engineering student with practical experience in embedded systems, IoT development, PCB design, microcontroller programming, and full-stack development. Diploma graduate in Computer Engineering with strong skills in C/C++, Python, chip design basics, and hardware-software integration. Interested in AI-driven and system-level engineering, continuously upskilling through hands-on projects and online learning. Open to opportunities in AI, embedded systems, IoT, and software development where I can contribute to real-world, tech-driven engineering solutions.

EDUCATION

Bachelor of Engineering – Electronics & Communication Engineering

Vishwakarma Government Engineering College (VGEC), Ahmedabad
2024 – 2027

Diploma in Computer Engineering

A.V. Parekh Technical Institute, Rajkot
• CGPA: 7.56 | 2021 – 2024

SSC – Gujarat Board

- Percentage: 90.98% (2021)

TECHNICAL SKILLS

- **Embedded Systems & IoT:** Raspberry Pi, Arduino, ESP32, IoT Development, PCB Design, Sensors, Digital & Analog Electronics
- **Programming:** Python, C, Assembly, MATLAB, VLSI, Git & GitHub, Microcontroller Programming, AI
- **Web Development:** HTML, CSS, MySQL, Basic Full-Stack Development
- **Cybersecurity:** Network Security, Information Security, Ethical Hacking, Operating Systems,
- **Industrial Automation & Semiconductor Basics**

SOFT SKILLS

- Problem-Solving & Critical Thinking
- Travelling
- Team Collaboration & Leadership
- Creativity & Innovation
- Effective Communication
- Reading books and writing ebook

PROJECTS

Multi-Auth Security System (ESP32)

Developed an IoT-based security system using ESP32 with fingerprint, RFID, and keypad authentication. Worked on sensor interfacing, embedded C/C++, and hardware-software integration.

Ultrasonic Distance Detection (ATmega32)

Built a distance measurement system using ATmega32 and HC-SR04 ultrasonic sensor, focusing on microcontroller programming and digital electronics.

Delay Timer Circuit (IC 555)

Designed a timing circuit using IC 555 in monostable/astable configurations and tested timing accuracy through hardware prototyping.

Personal Portfolio Website

Created a responsive portfolio website using HTML, CSS, and GitHub to showcase technical projects and skills.

EXPERIENCE

- Python Developer Intern — BrainyBeam Technologies, Ahmedabad • Sep 2022 – Oct 2022**
- Developed backend Python applications and learned foundational concepts in automation and software development.
- Cybersecurity Intern — NSIC Technical Services Centre, Rajkot • Dec 2023 – Jan 2024**
- Gained hands-on exposure to IoT security, networking fundamentals, and basic cyber defense practices.
- Ethical Hacking Intern — Cyber Shelter, Dhoraji • Aug 2023 – Oct 2023**
- Worked on network security, ethical hacking techniques, and basic vulnerability analysis.
- Astrophysics & Data Simulation Intern — India Space Week (Remote) • Jun 2025 – Jul 2025**
- Estimated the dynamical mass of a simulated galaxy cluster using the Virial Theorem.
using NumPy, Matplotlib, and Astropy

CERTIFICATIONS

- Machine Learning I – Columbia+ (Issued Aug 2025)
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional – Oracle (Issued Aug 2025)
- Cybersecurity & IoT – NSIC Technical Services Centre
- Ethical Hacking & Network Security – Cyber Shelter
- Python & Django Development – BrainyBeam Technologies Pvt. Ltd.
- Digital Marketing – UniAthena
- Artificial Intelligence – HP LIFE
- Python Programming – UniAthena (Jun 2025)

LANGUAGES

- ENGLISH
- GUJARATI
- HINDI

CAREER OBJECTIVE

To secure a challenging role where I can apply my skills in hardware-software integration, IoT, and modern technological solutions, while continuously learning and contributing to innovative, tech-driven projects.