Priyanka U Ghodke

Electronics & Telecommunication Engineer
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SUMMARY

Motivated Electronics & Telecommunication Engineering student specializing in Embedded Systems, VLSI, and Control Systems. Skilled in Verilog, MATLAB, Embedded C, and Python. Hands-on experience in microcontroller programming, signal processing, and system modeling through internships at ISRO-SAC, NCRA-GMRT(TIFR), and Emertxe Technologies.

EDUCATION

Savitribai Phule Pune University - Govt. College Of Engg. & Research **2022 - 2026**
Bachelor of Engineering in Electronics and Telecommunication - **CGPA - 7.28 (as of now)** *Pune, Maharashtra*

Maharashtra State Board **2020 - 2021**
H.S.C. (12^{th}) - **Percentage - 82.33%** *Ahmednagar, Maharashtra*

Maharashtra State Board **2019 - 2020**
S.S.C. (10^{th}) - **Percentage - 83.40%** *Ahmednagar, Maharashtra*

PROFESSIONAL EXPERIENCE

Indian Space Research Organisation (ISRO - SAC) **Sep 2025 - Mar 2026**
Research Intern *Ahmedabad, Gujarat*
Working with SEDA, Sensor Development Area at ISRO on project based on Analog Electronics, for designing a circuit on X-ray detection using Op-amp for it's Space applications and development scope of payload designing. (using Pspice, Orcad)

Tata Institute of Fundamental Research (NCRA - GMRT) **Jun 2025 - Aug 2025**
Research Intern *Pune, Maharashtra*
Modeled wind data using FFT and Davenport Spectrum to design antenna control systems.

SKA's Summer Training **Jul 2025**
Student Trainee *IIT - Indore, Madhya Pradesh*
Gained hands-on experience in DSP, control systems, antenna design, and radio astronomy (BPF, LNA & RTL-SDR- designed horn antenna).

Emertxe Technologies **Jan 2025 - Feb 2025**
Technical Intern *(Hybrid)*
Developed a microwave oven simulation using PIC16F877A microcontroller and Embedded C.

PROJECTS

Wave Detector - ISRO's Project | *Psipce, Orcad* **Sep 2025**
- Implementing a X-ray detector circuit using Op-amp for development of Space application (Camera quality).

Noise Reduction Using Signal Filter (Kalman Filter) | *Matlab, GNU Radio, HFSS* **Jul 2025**
- Implemented Two-State Kalman Filter in MATLAB for denoising Hydrogen-line (1420 MHz) signals; simulated acquisition in GNU Radio and validated antenna model in HFSS.

Wind Data Analysis & Transfer Function Modeling | *Matlab* **Jun 2025**
- Analyzed GMRT wind turbulence data, applied FFT/Welch PSD, and modeled antenna dynamics.

Solar Pesticide Sprayer Robot | *Arduino IDE, C* **Mar 2025**
- Built solar-powered spraying robot using microcontrollers with feedback control system.(Finalist at I2i COEP, Pune)

Microwave Oven Simulation using PIC16F877A | *Embedded C, MPLABX, Proteus, Picsimlab* **Jan 2025**
- Developed a functional microwave oven simulator with Micro/Grill/Convection modes using Embedded C on MPLABX and PICSIMLAB.

Generation Of Electricity from waste materials | *Electrical Hardware, Solar based* **Mar 2024**
- Utilizing anaerobic digestion, pyrolysis, and recycling, we aim to convert waste into sustainable energy.

TECHNICAL SKILLS

- **Programming** : Embedded C, Python, C, Matlab Scripting
- **HDL**: Verilog, VHDL
- **Tools**: MATLAB, MPLABX, Arduino, Pspice, Quartus, Proteus, Vivado, Picsimlab
- **Concepts**: Control Systems, Analog/Digital Electronics Signal Processing, VLSI Design, PCB Design, Electronics/Electrical Systems

CERTIFICATE

- VLSI Soc Design using Verilog HDL – **Maven Silicon**
- VLSI Development - **NIELIT**
- Aavishkar - 2024, **Zonal Level Research Competition (SPPU)**
- FPGA Session – **eYantra, IIT Bombay**
- MATLAB Onramp – **MathWorks**
- Microcontroller Programming in Embedded C – **MindLuster**