Pradnya Tanaji Patil

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SUMMARY

Recent **B.Tech graduate** in Electronics & TeleCommunication Engineering with hands-on experience in **embedded systems**, **Arduino programming**, and **Python**. Demonstrated expertise through multiple internships and academic projects focused on safety systems and automation. Passionate about applying technical skills to solve real-world problems and eager to contribute to innovative engineering solutions.

EDUCATION

Shree Siddheshwar Women's College of Engineering — Solapur, MH
Bachelor of Technology (Electronic & TeleCommunication) — *August 2022 – June 2025*
- CGPA: 65.40% under DBATU

Shree Siddheshwar Women's Polytechnic — Solapur, MH
Diploma in Engineering — *July 2019 – June 2022*
- Percentage: 71.41% under MSBTE

Gandhi Natha Rangji Vidyalaya — Solapur, MH
SSC - Maharashtra State Board — *2018 – 2019*
- Percentage: 75.60%

TECHNICAL SKILLS

Programming Languages: Python, C Programming, HTML, CNC Programming
Development Tools: Arduino IDE, MS Excel, PLC
Hardware Skills: Embedded systems, Arduino
Soft Skills: Problem-Solving, Adaptability, Presentation Skills

INTERNSHIPS & TRAINING

Graduate Trainee Engineer — Jan 2025 - June 2025
Bajaj Engineering Skill Training CSR Program (BEST) — *Pune, MH*
- Participated in comprehensive engineering skill development program focusing on industry best practices.
- Gained exposure to manufacturing processes and quality control systems.
- Completed training modules on Total Productive Maintenance (TPM) methodologies.

Trainee Engineer — July 2024
TechnoHacks EduTech — *Solapur, MH*
- Worked on technical projects involving software development and system design.
- Collaborated with team members on educational technology solutions.
- Enhanced problem-solving skills through hands-on project experience.

Trainee Engineer — 2021
Spoken Tutorial, IIT Bombay — *Solapur, MH*
- Completed structured learning modules on various technical topics.
- Developed foundational skills in programming and system design.
- Participated in online learning initiatives and skill assessments.

ACADEMIC PROJECTS

Service Robot Controlled by Google Assistant and Arduino | *Arduino, C++, Ultrasonic Sensors*
- Built an Arduino-based robot capable of autonomous movement.
- Integrated ultrasonic sensor for real-time object detection.
- Created a self-navigating robot using Arduino and ultrasonic sensors.
- Assembled hardware including motors, wheels, and driver module.
- Coded motor control and distance sensing algorithms in C++.

Night Patrolling Device with Arduino | *Arduino, C Programming, Embedded Systems*
- Designed and developed a comprehensive night patrolling system to enhance safety and security during night-time hours.
- Implemented motion detection technology to identify unauthorized movement or intrusions in monitored areas.
- Integrated alarm and buzzer systems that activate automatically when motion is detected.
- Developed notification system capable of sending alerts and making calls to owners or security personnel.
- Utilized Arduino micro-controller for system control and sensor integration.
- Tested and validated system performance under various environmental conditions.

Alcohol Detector and Engine Locking System | *Arduino, MQ-3 Sensor, Embedded Systems*
- Developed an innovative vehicle safety mechanism that prevents engine start if the driver is intoxicated.
- Integrated MQ-3 alcohol sensor sensitive to alcohol vapors in breath for accurate detection.
- Programmed Arduino to process analog signals from alcohol sensor based on concentration levels.
- Implemented relay-based engine locking system that activates when alcohol levels exceed safety threshold.
- Designed user-friendly interface with clear indicators for system status and alerts.
- Conducted extensive testing to ensure reliable operation and safety compliance.

CERTIFICATIONS

- **PCB and Drone Designing** - Aptron Tech
- **Python Fundamentals** - Great Learning
- **Manufacturing System Program on TPM** - Bajaj
- **Workshop on Metaverse** - Technology Workshop
- **Soft Skills Course** - NPTEL
- **Employability Skill Training Program** - Naandi Foundation

ACHIEVEMENTS & ACTIVITIES

Competitions: State Level Quiz Competition on Technical MCQ
Hobbies: Reading, Writing, Learning Languages, Traveling

LANGUAGES

Human Languages: English, Marathi, Hindi, German (A1 Level)