Arush Gosavi

Pune, India

📞 +91 9876543210 ✉️ arush.gosavi@example.com 🔗 LinkedIn: arushgosavi

SKILLS

- **Embedded Systems**: ARM Cortex, AVR, PIC Microcontrollers, Raspberry Pi, ESP32, STM32
- **Programming**: C, C++, Embedded C, Python
- **Hardware Design**: PCB Designing (Altium, KiCad, Eagle), Circuit Simulation (Proteus, LTspice)
- **Communication Protocols**: UART, SPI, I2C, CAN, RS232
- **Operating Systems**: Linux, FreeRTOS
- **Testing & Debugging**: JTAG, Oscilloscope, Logic Analyzer, Multimeter
- **Soft Skills**: Problem Solving, Teamwork, Leadership, Attention to Detail

EDUCATION

National Institute of Technology (NIT), Karnataka

Bachelor of Technology in Electronics & Communication Engineering (2019 – 2023)

CGPA: 8.65

ABC High School, Pune

Intermediate in Science (2017 – 2019)

Percentage: 88.5%

XYZ School, Pune

SSC (2016 – 2017)

Percentage: 92.4%

EXPERIENCE

Embedded Hardware Engineer | MicroTech Solutions | July 2023 – Present

- Designed and developed embedded firmware for IoT-based industrial automation systems.
- Worked on STM32 and ESP32 microcontrollers for real-time data acquisition.
- Implemented UART, I2C, and SPI communication protocols for sensor interfacing.
- Optimized power consumption of embedded devices using sleep modes and efficient coding.
- Conducted PCB layout design and simulation for hardware verification.

Embedded Systems Intern | Innovate Electronics | Jan 2022 – June 2023

- Assisted in designing low-power embedded devices for home automation.
- Developed firmware in Embedded C for AVR and PIC-based controllers.
- Conducted hardware debugging and troubleshooting using oscilloscopes and multimeters.
- Collaborated with the R&D team to prototype new electronic products.

PROJECTS

Smart Home Automation System | ESP32, MQTT, IoT

- Designed an IoT-based home automation system using ESP32 and MQTT protocol.
- Developed a mobile app interface to control lights, fans, and appliances remotely.
- Implemented real-time monitoring of temperature and humidity using DHT11 sensors.

Autonomous Line Following Robot | AVR, PID Control

- Built a line-following robot using IR sensors and an AVR microcontroller.
- Implemented PID control for smooth navigation and speed optimization.
- Integrated a Bluetooth module for manual control through a mobile app.

Industrial Temperature Monitoring System | STM32, CAN Bus

- Designed a real-time industrial temperature monitoring system using STM32.
- Implemented CAN bus protocol for communication between multiple nodes.
- Developed an LCD-based user interface to display sensor data.

CERTIFICATIONS & ACHIEVEMENTS

- Certified in **Embedded Systems & IoT Development** – NPTEL
- Completed **PCB Design Masterclass** – Udemy
- Winner of **National Robotics Competition** at TechFest
- Presented a research paper on **Low-Power IoT Devices** at IEEE Conference

EXTRACURRICULAR ACTIVITIES

- Member of **Robotics Club** at NIT Karnataka
- Volunteer at **Tech For Good** initiative, helping students learn embedded systems
- Participated in **National Hackathon on IoT & Automation**