

Samiksha Shinde

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PROFESSIONAL SUMMARY

Result-driven Embedded Systems Engineer with 1.5 years of experience across medical, industrial, and commercial domains. Skilled in developing efficient firmware solutions using C and Embedded C, with hands-on expertise in UART, SPI, I2C, and Bluetooth communication protocols. Experienced in integrating sensors such as accelerometers and gyroscopes to enable real-time feedback and intuitive user interfaces. Currently focused on developing innovative assistive technology solutions using Bluetooth Low Energy (BLE) and Zephyr RTOS. Committed to delivering reliable embedded systems that seamlessly bridge hardware and software.

WORK EXPERIENCE

- **DELIGHTECK PVT LTD** (Pune, MH, India)
Embedded developer (2025 - Present)
 - **AKSHAY EMBEDDED SYSTEMS PVT LTD** (Pune, MH, India)
Embedded Firmware Engineer (2024-2025)
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PROJECTS

- **XRAY machine control with DWIN TOUCH SCREEN HMI display**

Developed embedded firmware for an XRAY machine control system with a DWIN Touch Screen HMI, implementing real-time control algorithms for precise operation. Integrated hardware components, Conducted Rigorous testing, and ensured compliance with industry standards, delivering a reliable and advanced medical imaging solution on schedule

- **Master Controller (Bag Filter)**

Designed and implemented a system for removing dust particles from large smokestacks. Integrated two pressure sensors for real-time monitoring and two power cards for efficient system operation. Ensured reliable performance through precise sensor interfacing and robust power management.

- **Scanner Card**

Developed firmware for a scanner card used in baggage scanning systems at airports and malls. Designed real-time control algorithms, integrated hardware components, and optimized performance for accurate and efficient scanning operations

- **RWD Zephyr Project**

Developed an assistive technology system aimed at aiding individuals with memory impairments in performing daily tasks such as chopping vegetables, pouring liquids, and cutting cakes. The system utilizes motion detection to trigger corresponding instructional visuals on a tablet, providing real-time guidance to user.

TECHNICAL SKILLS

Programming Languages: C Programming, Embedded C.

Testing, Debugging and Flashing Tool: PICKIT 3, ST Link debugger.

Tools & Technologies: Visual Studio, MPLAB IDE, MPLAB XIDE, STM32Cube IDE, Zephyr IDE, NRF Connect IDE, Git (basic).

EDUCATION

SAVITRIBAI PHULE PUNE UNIVERSITY.

Bachelor of Engineering (Electronics and telecommunication) Aug 2019 - Apr 2023,
Cumulative GPA: 8.68

MAHARASHTRA STATE BOARD, PUNE.

H.S.C (Science) Jul 2018 - Jul 2019,
Percentage: 74.80%