**Shruti**\_50percent📧 shruti50pc@gmail.com | 📞 9845737983 | 📍 [City, State]

**👨‍💻 Professional Summary**

Seasoned Embedded Systems Engineer with over 12 years of experience in low-level software development, specializing in C programming for microcontroller-based systems. Proven track record of delivering robust and maintainable firmware across diverse platforms. Adept at collaborating with cross-functional teams and optimizing code for performance and reliability in resource-constrained environments.

**🎓 Education**

**Bachelor of Engineering in Electronics and Communication** [University Name], [City, State] Graduated: [Year]

**💼 Professional Experience**

**Senior Embedded Software Engineer** XYZ Technologies Pvt. Ltd., Bangalore, India *Jan 2015 – Present*

* Developed and maintained firmware for ARM Cortex-M based microcontrollers in C.
* Designed and implemented device drivers for UART, SPI, and I2C interfaces.
* Collaborated with hardware teams to bring up new boards and validate peripheral interfaces.
* Conducted unit and integration testing on target hardware using JTAG and SWD tools.
* Participated in Agile sprints, contributing to sprint planning and retrospectives.
* Handled difficult memory management related bugs with efficiency and speed

**Embedded Systems Engineer** TechNova Embedded Solutions, Hyderabad, India *Jul 2011 – Dec 2014*

* Built low-level firmware modules for industrial automation products.
* Worked with memory-mapped I/O and implemented interrupt-driven routines.
* Used oscilloscopes and logic analyzers for debugging hardware-software interactions.
* Maintained technical documentation and participated in code reviews.

**🛠️ Technical Skills (Selected Subset – ~50% Match)**

**C Programming & Embedded Concepts**

* Proficient in C (C99 standard), including pointer arithmetic and memory management
* Experience with device drivers (UART, SPI, I2C) and HAL development
* Familiar with bit manipulation and preprocessor directives
* Worked with memory-mapped I/O and volatile keyword usage
* Exposure to FreeRTOS for task scheduling and synchronization primitives

**Tools & Debugging**

* GDB, JTAG/SWD debuggers
* Git for version control
* Make and CMake for build automation

**🏆 Achievements**

* Reduced firmware boot time by 30% through optimized ISR and startup routines
* Led a 4-member team in migrating legacy firmware to a modular HAL-based architecture
* Received “Best Innovator” award for implementing a custom bootloader with rollback support

**🌐 Languages & Interests**

* Languages: English, Kannada, Hindi
* Interests: Hardware tinkering, open-source contributions, embedded security research