

B PREKSHA

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CAREER OBJECTIVE

Motivated embedded engineer with a 1 year of practical experience designing and developing embedded systems; interested to apply technical skills and problem-solving abilities in a fast-paced engineering team; obtaining to stay on the leading-edge of technological advancements and contribute to creative projects while attaining personal and professional growth.

PROFESSIONAL EXPERIENCE

Embedded Engineer

Samniya Avionics Techsys Pvt Ltd, Bengaluru [January 2024 – Present]

- Designed and developed firmware for avionics systems, ensuring high performance and reliability.
- Collaborated with cross functional teams to resolve embedded software issues.
- Utilized C, C++ and ARM Cortex microcontrollers for developing embedded applications.
- Implemented communication protocols like CAN, SPI, and I2C for efficient data exchange between modules.
- Conducted performance testing and optimization, resulting in increase in system efficiency.

Trainee Engineer

Knowx Innovations Pvt Ltd, Bengaluru [July 2023 - December 2023]

- Assisted in the development and testing of firmware for IoT devices, contributing to a project aimed at enhancing smart home automation.
- Worked closely with senior engineers to debug and troubleshoot embedded code, achieving reduction in system errors.
- Developed and maintained comprehensive documentation for embedded software.
- Participated in design reviews and provided valuable feedback, promoting a collaborative and innovative development environment.

EDUCATION

Bachelor of Engineering in Electronics and Communication Engineering

PES Institute of Technology and Management, Shivamogga, India

Graduated: June 2023

SKILLS

- Programming Languages: C, C++
- Software/Tools: MATLAB, Keil, Arduino IDE, Xilinx, PADS Professional for PCB, LTspice, QuestaSim, STM32 IDE
- Microcontrollers: ARM Cortex, Atmel, STM32

- Operating System: Linux
- Communication Protocols: I2C, SPI, CAN
- Embedded Systems: Design and Development, Realtime Operating Systems (RTOS), Circuit Design and Analysis
- Standards: DO254
- Other Skills: Debugging and Troubleshooting, Performance Optimization, Technical Documentation

PROJECTS

- **Development of ESC:** Developed an Electronic Speed Controller (ESC) for brushless DC motors, focusing on motor control algorithms, hardware design, and optimization. Programmed embedded C software for efficient operation and real-time adjustments. Conducted testing to ensure reliability, safety, and compliance.
- **Design and Development of Quadcopter:** Designed and developed a quadcopter, selecting hardware, flight control system, and stabilization algorithms. Integrated sensors for position and altitude monitoring, programmed embedded software for flight control and navigation flight control software using PID controllers, and optimized performance through testing.
- **Controlling BLDC motor using C:** Developed a BLDC motor control system using C, implementing sensor less control algorithms for efficient speed and direction management. Programmed real-time software for precise motor operation. Conducted testing to optimize performance and reliability.

CERTIFICATIONS

- Attended several intercollege competitions for robotic events Attended in International Conference on Advances in Engineering and Technology organized by K R Pete Krishna Government Engineering College, Krishnarajapete, Karnataka.

ADDITIONAL INFORMATION

Languages

- English (fluent), Hindi (fluent), Kannada (fluent)

Hobbies and Interests

- Participating in tech meetups
- DIY electronics projects (showcasing practical skills)
- Reading about advancements in AI and IoT

Soft Skills

- Excellent teamwork and communication skills
- Strong analytical and problem-solving abilities
- Highly organized with great attention to detail