

NITHISHKUMAR VADIVELAN

+91 9488775296 | Chennai |

nithishkumarmadivelan@gmail.com | linkedin.com/Nithishkumar V

OBJECTIVE

Enthusiastic Software Engineer with the experience of specialization in embedded systems and microcontroller programming. Proficient in working with microcontrollers. Developed and deployed solutions for real-time data processing and data handling. Demonstrated ability to deliver reliable and efficient embedded systems in a dynamic work environment. Strong experience in hardware troubleshooting and system optimizing. Eager to apply my technical skills and contribute to innovative projects in embedded systems engineering. Interested in the area of the Supply Chain Management, Demand Forecasting, Vendor Relations and Flexible to work in shifts.

SKILLS

Technical Skills

- Embedded Systems
- Programming Languages : C and Python
- Software Tools and Techniques
- Cloud Computing
- Internet and Web Techniques
- Communication Protocols : CAN, SPI, UART and I2C
- Serial Protocols: Modbus and Profinet
- Real Time Operating Systems
- Storage Protocols : EEPROM and SDIO
- Embedded System and Microcontroller skills : Timers, RCC, GPIO, DMA and DAC
- Microcontrollers and Microprocessors
- Database Management : Structured Query Language(SQL)
- Embedded C

Key Strengths

- Escalation handling and Adaptability
- Process Improvement and Quality Assurance
- Smarter Decision Making and Good Communication Skills
- Problem Solving and Debugging
- Collaborative Team Player
- Willing to learn analytical tools and automation
- Leadership Attention to detail

WORK EXPERIENCE

Software Engineer

December 2023 - September
2024

BigBoon Technologies Private Limited

Chennai, TN

- Developed and Maintained Embedded software solutions for STM32 Microcontrollers, focusing on peripherals such as Timers, DMA, DAC, RCC and GPIO.
- Implemented and optimized communication protocols including CAN, UART, I2C and SPI for real time embedded systems.
- LED debugging, testing and optimization of embedded software to meet performance and reliable targets.
- Worked closely with Cross-functional teams to integrate hardware and software components, improving system functionality and performance.

EDUCATION

Bachelor of Engineering, Electronics and Communication, UCE-BIT

August 2019 - June 2023

GPA: 8.3, First Class

Relevant Coursework: Detection of Blood Glucose level for Diabetic Patients

PROJECTS HANDLED

Single wire Serial EEPROM

Reading 64-bit Serial number from the Single wire Serial Electrically Erasable and Programmable Read only Memory (EEPROM) using the Timer-1 Input Capture mode to Capture the data and then process the data, check the CRC for the data and store the actual data into the buffer.

USB-to-CAN data transmission via Serial Monitor with reception on STM boards

Designed and Implemented embedded system for transmitting data from a Serial monitor to CAN network via USB using the STM32F407 microcontroller, and receiving the data on the STM32F429 microcontroller using a CAN receive interrupt. Established a reliable system to transmit the data from the Serial monitor to the STM32F429 board using the CAN protocol.

Communication Projects

- Developed and tested communication systems using I2C, SPI, CAN and UART protocols.
- Utilized various methods including Polling, Interrupts and DMA for communication, demonstrating versatility and understanding of different communication strategies.

TOOLS and TECHNOLOGIES

- STM32CubeIDE
- EclipseIDE
- Saleae Logic
- Visual Studio Code
- ArduinoIDE
- MS Office (MS Excel, MS Word, MS Powerpoint)

LANGUAGES KNOWN

- English
- Tamil
- Kannada
- Telugu