

# K A A R T H I C K B

EMBEDDED SOFTWARE PROGRAMMER

[bkaarthick14@gmail.com](mailto:bkaarthick14@gmail.com)

+91 9080236548

Avadi, Chennai, IN

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## Experience details

. I have 2 years of experience in embedded project development, especially embedded C programming

Position: **Embedded Software Programmer**

Company: **Mirror Technologies Private Limited**, Chennai

Duration: **5<sup>th</sup> Jan 2023** to till date

## Educational qualifications

- BE(EIE) from Panimalar College of Engineering with **8.32 CGPA, MAY(2023)**.
- HSC from Velammal Matric Higher Sec School with **61%, MARCH (2019)**.
- SSLC from Velammal Matric Higher Sec School with **91.2%, MARCH (2017)**.

## Technical proficiency

Languages	-	<b>C, Embedded C</b>
Controllers	-	<b>ATMEL89 series, PIC 16F877A, STM32F411CEU6.</b>
Protocols used	-	<b>UART, I2C, SPI, CAN.</b>
Operating systems	-	<b>Windows</b>
Packages	-	<b>GCC, Keil, MPLAB IDE,STM32CubeMX,STMCubeIDE</b>
Hardware tools	-	<b>Debugger (ST-linkV2, Pickit3)</b>
Tools Used	-	<b>PROTEUS v8.6</b>
Interfaces	-	<b>Alphanumeric LCD, ADC, LM35, EEPROM</b>

## Career summary

- Experience in Embedded System Product Development.
- Working on the product of **8-bit and 32-bit microcontroller-based** applications.
- Good knowledge, practice, and experience in C programming.
- Having good **Embedded C** Programming experience in **ATMEL, Microchip and STM**
- Have implemented and exposed with protocols **UART, I2C, SPI, CAN**
- Have Exposure to **AUTOSAR** architecture concepts.

## **Experience**

### **Project 1 :OBd II- Data Logger for Vehicle Diagnostics using IOT Cloud Server and Web Monitoring**

Hardware Used : PIC18f46k80, TJA1042, ESP 8266  
Concepts : CAN protocol, ISO 15765-4, PWM, TCP/IP  
Tools Used : PCAN-View, DSO, DMM  
Platform : MicroC PRO  
Software used : Embedded C  
My Role : Software programmer

#### **Description:**

- The main objective of the project to read vehicle's **Engine's RPM** from OBD II.
- Engine's RPM from the OBD II is **used to test the vehicle and analyze the parameters.**
- This project is designed for the R&D purpose in our client side.
- Basic parameters will be sent to cloud server using Esp8266 wi-fi module and TCP/IP.
- Data is used for extended kind of application such as **Data logger Applications.**
- Based on **PID & ISO- 15765-4 CAN data** is obtained from OBD II.
- The PIC18f46k80 is interfaced with a Wi-Fi module to store the CAN data in the cloud.

## **Uart,I2c,Spi project implemented**

- **UART:** Implemented UART communication to interface GPS module with STM32 microcontroller for real-time location data acquisition
- **I2C:** AT24C02A EEPROM interface using I2C Protocol
- **SPI:** AT93C46B EEPROM interface using SPI protocol

## **Personal profile**

**Father's Name** : R. BASKAR  
**Permanent Address** : No.10 Kannagi Street Kannigapuram Avadi  
Chennai-60054  
**Date of Birth** : 21st November 2001  
**Gender** : Male  
**Languages Known** : English & Tamil  
**Marital Status** : Single  
**Nationality** : Indian  
**Interests & Hobbies** : Car driving, Badminton.