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rajbharathi424@gmail.com

Total Experience (4.7 Years)

Embedded Software - 3.3 Years

PCB Assembly and Quality - 1.4 Years

CONTACT

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Taramani,Chennai.

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SKILLS SET

- Embedded C programming
- Microcontrollers- STM32 series
- Real-time Operating Systems (RTOS)
- Software Debugging skills
- Interrupt-driven design
- Hands on experience communication protocols includes I2C, Serial Peripheral Interface (SPI), General-purpose input/output (GPIOs), Controller Area Network (CAN bus),UART communication
- ADC, Timers, Interrupts ,DMA on stm32 controllers
- Arduino and Nextion display Programming
- Completed 4 month short term course on Electrical Vehicle and Renewable Energy in IITM (June - Nov 2022)

BHARATHIRAJA N

Embedded Software Developer

Software Developer for EV Chargers and Controllers

PROFESSIONAL EXPERIENCE

FLOWTRIK TECHNOLOGIES,IITMRP | Embedded software developer

7/10/22- Present

Roles and Responsibilities:

- Designing program architecture based on project requirements and hardware specifications.
- Writing software code, embedded programs, and system protocols.
- Conducting tests on the embedded software systems to ensure proper integration
- Troubleshooting embedded systems and diagnosing errors, malfunctions, or inefficiencies.

PROJECTS

AC Public chargers(3.3 KW to 22KW)

- Compliant with IEC 61851-01 Electric vehicle conductive charging system.
- Used as the public charging station for EVs(2W,3W,4W)
- Portable for AC single phase and 3 phase supply system with Type 2 connectors(7 KW, 11KW,22KW)
- Compatible with OCPP1.6j with backend sever connectivity
- Interface with BLE Module ,4g model and control pilot
- Integrated with internal energy measurement system
- Compatible for LEV charging standard for 3.3kw (IS 17017:Part1:2018)

CCS2 DC Fast charger (15kw/30 KW)

- Compliant with ISO/IEC 15118 and DIN 70121 and IEC-61851 standards.
- Communicate with the vehicle by using High level PLCC and low level Control pilot (PWM) signal.
- Interface with QCA7005 chipset build for Powerline Communications (PLC) compliant with the Home Plug Green PHY (HPGP) specification.(SPI)
- Rectifier control by using the CAN communication.
- User communication by using Nextion HMI touch screen display.(UART)

EDUCATIONAL BACKGROUND

CSI INSTITUTE OF TECHNOLOGY,THOVALAI
Bachelor of Engineering in Electronics
and Communication, 74%

Completed in 2019

GOVT HR SECONDARY SCHOOL,ANAIKULAM
HSC, 88 %

Completed in 2015

GOVT HR SECONDARY SCHOOL,ANAIKULAM
SSLC , 94 %

Completed in 2013

HOBBIES

- Reading books
- Travelling

CENTRE FOR BATTERY ENGINEERING & ELECTRIC VEHICLE,
IIT MADRAS | PROJECT ASSOCIATE

03/12/2020 - 06/10/2022

ROLES AND RESPONSIBILITIES:

- Designing program architecture based on project requirements and hardware specifications.
- Writing software code, embedded programs, and system protocols.
- Conducting tests on the embedded software systems to ensure proper integration
- Troubleshooting embedded systems and diagnosing errors, malfunctions, or inefficiencies.

PROJECTS

EV CHARGERS | BULK CHARGER

- Build with LS-VBCC protocol used for communication between battery swapping station ,batteries and central management system (server)
- Compliance with SAEJ1939 CAN high layer protocol.
- Ability to charge more than 20 batteries at the same time
- Peripheral used: Arduino-TFT display ,Rectifier control circuit, external flash memory , Ethernet and SD card

AVALON TECHNOLOGIES PRIVATE LTD
GRADUATE ENGINEER APPRENTICE

17/7/2019 -17/11/2020

ROLES AND RESPONSIBILITIES:

- Final quality check inspection. To ensure the products are satisfies the IPC-610-G standard and it meets the customer requirements
- Manual Soldering