

BHUVANESHWARAN

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Career Objective:

Seeking a position to utilize my skills and abilities in the embedded domain that offers professional growth while being innovative and flexible.

Professional Summary:

- **Total 10.5 years of experience in embedded software development including 7.5 years Automotive Tier1 Industry working on design & development of Automotive ISGM ECU and Automotive ECU.**
- Experience in BLDC Electric Coolant Pump and Fuel Pump Module ECU software development and testing of ECU'S of Electric Vehicles.
- Experience in Integrated Starter Motor Generator ECU software development and testing of ECU'S of Mild Hybrid Vehicles.
- Experience in Electronic Power Steering System ECU software development and testing of ECU's of Farm sector and commercial vehicles.
- Experience in calibration of Electronic Power Steering System ECU's for Farm sector and commercial vehicles.
- Hands on Experience in different Communication protocols such as **SPI, UART and I2C,CAN.**
- Hands on Experience on MPC5744P,ATmega89C51, MC9S08MP16, S9KEAZ128AMLH and DSPIC33EV256GM106 C2000 TI and RH85 controllers.
- Hands on **Experience on usage of debugging tools** such as P&E's USB Multilink, Cyclone Max and MPLAB ICD 3 Programmer & Debugger.
- Hands on Experience on usage of simulation tools such as **CANape, CANalyser ,CanOE** and MATLAB MODEL BASED design
- Experience in selection of Torque sensors of Electronic Power Steering System.
- **Good knowledge on Hardware design and component selection of EPS ECU.**
- Good knowledge on **diagnostic tools and Data Loggers for vehicles.**
- Hands on **experience in Software design life cycle.**
- **Strong in Embedded C**
- Experience on Operating Oscilloscope & Function generators.

Work Experience:

- Currently working as **Senior Engineer in Pricol limited, Coimbatore** from June 2021 to Still now.
- Worked as **Senior Engineer in Comstar Automotive Technologies Pvt Ltd ,Chennai** from June 2018 to June 2021.
- Worked as **Embedded Software Engineer in Pragathi Solutions deputed to Rane Madras Ltd, Chennai** from June 2015 to July2017.
- Worked as **Embedded Software Engineer** in Aathi Global Technologies from 2014 to 2015, Chennai
- Worked as **Embedded Software Engineer** in Porus Technologies from 2011 to 2014, Chennai

Educational Information:

- B.E in ECE at Anna university Coimbatore, Tamil nadu .2007-2010.
- Diploma in ECE, from Govt Polytechnic Collage , Ooty 2004-2007.
- Higher Secontry School from R.G.HSschool, 2002-2004.

- SSLC School from R.G.HSschool, 2001-2002.

Skill Set:

Programming Languages	Embedded C and C.
MATLAB tool	Matlab Model Based Design (Stateflow, Simulink ,Code Generator)SIL, MIL
Controllers	MPC5944P(32 Bit) MC9S08MP16(8 Bit), S9KEAZ128AMLH (32 Bit) and DSPIC33EV256GM106 (16 Bit)
Debugging Tools	S32 Design Studio, Code Warrior, MPLAB X IDE, Atmel Studio, Keil. JIRA and SVN.
Simulation Tool	CANape, CANalyser ,CanOE,PCAN
Protocols	SPI, I2C, UART and CAN, UDS
Operating system	Knowledge of, Windows, FreeRTOS.
Standards	ISO 26262,MISRA C
Static analysis	LDRA

Projects worked on:

PROJECT NAME	BLDC Electric Coolant pump ECU and Fuel Pump Module software development for driver module and control algorithm different motors..
Role	Team Member – Development and Testing.
Employer	Pricol Limited
Environment	Microcontroller : TI MSP430 and F280025 Family, Melaxis Language : Embedded C S/W Tools : Ccs IDE H/W Tools : MSP430 Debugg

Description:

Currently working on **BLDC motor control algorithm software development for driver module** and control algorithm for Electric coolant pump & Fuel pump for different motors.

Responsibilities:

- Analysis of Requirements and specifications from different customers.
- Analyze the high level design architecture definition for the new products and Provide customer specific Requirements.
- Development and Peripherals configurations of low level driver.
- Functional testing of PMSM motor Control on bench level.
- Co-ordination and providing technical support to team.
- Active participation in Team Reviews, Technical Discussions and Technical support to the team.
- Performing Integration testing, Unit Testing for feature changes.
- Managing the releases or Delivery of software
- Training / Support the team members proactively in their daily on-job tasks through which support for organization's growth
- Contribute effectively in the improvement of standard process, guidelines, checklists, and tools.
- Verified motor performance and output waveforms
- Interact with multiple supplier and customer to meet the requirements

Project #1:

PROJECT NAME	ISGM (Integrated Starter Motor Generator)-(PMSM motor Control Algorithm)
Role	Team Member – Development and Testing.
Organization	Geely.
Employer	Comstar Automotive Technologies.
Environment	Microcontroller : MPC5744P (32 Bit) Language : Embedded C and MATLAB MODLING. S/W Tools : s32 Design Studio V1.2. H/W Tools : Cyclone Max Programmer and Debugger.

Description:

ISGM Integrated Starter generator Motor which is used in Mild hybrid vehicle to start the engine and save Fuel consumption and provide more Torque assist to engine and Charging the 48V battery.

Responsibilities:

- Analysis of Requirements and specifications from different customers.
- Analyze the high level design architecture definition for the new products and Provide customer specific Requirements.
- Development and Peripherals configurations of low level driver.
- Functional testing of PMSM motor Control on bench level.
- Co-ordination and providing technical support to team.
- Active participation in Team Reviews, Technical Discussions and Technical support to the team.
- Performing Integration testing, Unit Testing for feature changes.
- Managing the releases or Delivery of software
- Training / Support the team members proactively in their daily on-job tasks through which support for organization's growth
- Contribute effectively in the improvement of standard process, guidelines, checklists, and tools.

Project #2:

PROJECT NAME	Electronic Power Steering System ECU-60A BDC Motor.
Role	Team Member – Development and Testing.
Organization	Rane Madras Ltd.
Employer	Pragathi Solutions.
Environment	Microcontroller : S9KEAZ128AMLH (32 Bit) Language : Embedded C. S/W Tools : s32 Design Studio V1.2. H/W Tools : Cyclone Max Programmer and Debugger.

Description:

This project is dealing with the software development for the Electric Power Steering (EPS) ECU. This includes the analysis, development, coding verification, unit testing of the embedded software according to the different customer specifications and requirements.

Responsibilities:

- Analysis of Requirements and specifications from different customers.
- Active participation in Hardware design and component selection for the ECU.
- Development and Peripherals configurations of Clock, GPIO, ADC,Timer and PWM.
- Functional testing of ECU on bench level and vehicle.
- Co-ordination and providing technical support to team.
- Active participation in Team Reviews, Technical Discussions and Technical support to the team.

Project #3:

PROJECT NAME	Electronic Power Steering System ECU- 35A Motor
Role	Team Member – Development and Testing
Organization	Rane Madras Ltd
Employer	Pragathi Solutions
Environment	Microcontroller : MC9S08MP16(8 Bit) Language : Embedded C S/W Tools : Code Warrior IDE H/W Tools : P&E Multilink Programmer and Debugger

Description:

This project is dealing with the software development for the Electric Power Steering (EPS) ECU. This includes the analysis, development, coding verification, unit testing of the embedded software according to the different customer specifications and requirements.

Responsibilities:

- Analysis of Requirements and specifications.
- Development of software coding and Bug fixing.
- Fixing the software defects reported by validation team and customer.
- Functional testing of ECU on bench level and vehicle.
- Creating Low Level Design Document and High Level Design Document for the Software.

Project #4:

PROJECT NAME	Electronic Power Steering System ECU- BLDC Motor
Role	Team Member – Development and Testing
Organization	Rane Madras Ltd
Employer	Pragathi Solutions
Environment	Microcontroller : DSPIC33EV256GM106 (16 Bit) Language : Embedded C S/W Tools : MPLAB X IDE, XC16 H/W Tools : MPLAB ICD 3 Programmer & Debugger.

Description:

This project is dealing with the software development for the Electric Power Steering (EPS) ECU. This includes the analysis, development, coding verification, unit testing of the embedded software.

Responsibilities:

- Analysis of Requirements and specifications.
- Active participation in Hardware design and component selection for the ECU.
- Development and Peripherals configurations of Clock, GPIO, ADC,Timer and PWM.
- Development of Application software of EPS System.

- Co-ordination and providing technical support to team.
- Active participation in Team Reviews, Technical Discussions and Technical support to the team.

Personal Profile:

Name : Bhuvaneshwaran.M

Father's Name : Manian

Gender : Male

Marital status : Married

Nationality : Indian

Permanent Address : 5/1 3rd Street,Mullai Nagar,
Velayuthampalayam (PO),Karur (DT),PIN
PIN 639117 ,Tamil Nadu.

Recitencial Address : DF2 Colour Gate, Nesamani Nagar,
Perumpakkam (PO) ,Chennai -600126,TN.

Declaration:

I hereby declare that all the above mentioned information is true to the best of my knowledge.

Place:

Date:

BHUVANESHWARAN