AMITA DUBEY

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CAREER OBJECTIVE

Seeking a challenging position in the field of **Software Systems**, where there is an opportunity to share, contribute and upgrade my knowledge for the development of organization and self.

WORK EXPERIENCE:

Currently working at **Robert Bosch Engineering and Business Solutions** as **Senior Software Engineer** with total work experience of **9 years 3 months** in Software Testing

Company	Designation	Duration	Responsibility
1. **Robert Bosch Engineering and Business Solutions**	Senior Software Engineer	2 Jan 2019 – Till date	Matlab Testing , Simulink,Handling Release activities,customer collaboration,project management, Integration Testing using vectorcast tool , Creation of Unit Test, Detailed Design creation in Rhapsody,Detailed Design Review , code review, Qualification Testing in Real Hardware. Unit Level and system Level requirement analysis,
2. **Robert Bosch Engineering and Business Solutions**	Member Technical Services	8 Jan 2018 - 28 Dec 2018	Requirement based Testing, Bug Reporting and Technical Review
3. **Artech Infosystems**	Software Engineer	8 Aug 2016 - 29 Dec 2017	Code based Testing, Bug Reporting and Technical Review
4. **Pennant Software**	Software Testing Engineer	22 Dec 2014 11 July 2016	Unit Testing

SKILL SUMMARY

1) **Integration Testing using Vectorcast tool.**

2) **Qualification Testing in Real Hardware (using CanApe, Oscilloscope, rennessas flash software, debugger, real hardware, Lin)**
3) **Unit testing (requirement based testing, code based testing, requirement in the form of scade flow diagram)**
4) **Unit test Review Analysis**

5) **Code Review**

6) **Good knowledge of IBM Clear Case and Clear Quest, DOORS.**

7) **Good knowledge of ALM tool**

8) **Experience in His- Metrics and QAC Report Analysis.**

9) **Involved in Detailed Design review in Rhapsody and Enterprise Architect Tool.**

9)Skilled in Performing **White Box Testing** & **Black Box Testing.**

10)Involved in Testing using **SCADE and State Flow diagrams.**

11) Experience in creating Unit Design in Rhapsody tool.

12) Knowledge of CAN protocol.

13)Experience in working with Autosar Architecture.

14) Good Knowledge of Agile and Scrum Practices.

15) Experience in handling team of 11 people and guiding them in verification and validation.

16) Experience in handling customer collaboration individually.

17) Experience in strategy making and project planning with manager.

18) Experience in Matlab Simulink .

19)Analysis of software requirement to verify

Interested to learn and work in HIL Testing, system Testing or HSIT.

TECHNICAL SKILLS

Programming Languages	**C**
Controllers	**8051**
Operating Systems	**Windows**
Tools Used	**RTRT,Rhapsody,vectorcast,Matlab**
Simulator	**Green Hills Tricore Simulator**

EDUCATIONAL BACKGROUND

2009- 2014 **The Aeronautical Society of India, New Delhi**
A.M.Ae.S.I (B.E) Percentage: 60.0%

2008-2009 **Marthoma Gram Jyoti School Sihora Jabalpur** P.C.M: 70%;
C.B.S.E Board (Std. XII) Aggregate: 69.4%

2006-2007 **Marthoma Gram Jyoti School Sihora Jabalpur**
C.B.S.E Board (Std. X) Percentage: 68 %

CERTIFICATIONS

- Successfully Completed and Received a Passing Grade in **Introduction to Artificial Intelligence, Machine Learning**, **Deep learning** and **Python 101 for Data Science** through Simplilearn.
- Qualified **ISTQB Agile Tester Extension Exam** (International Software Testing Qualifications Board) – Foundation level in 2021.
- Qualified **ISTQB Technical Test Analyst Exam** (International Software Testing Qualifications Board) - Advanced level in 2021.
- Qualified **ISTQB Test Analyst Exam** (International Software Testing Qualifications Board) - Advanced level in 2020.
- Qualified **ISTQB** (International Software Testing Qualifications Board)-Fundamental level Exam in 2019.
- **Successfully completed training for LabCar ,Power Train and Artificial Intelligence.**

Awards and Appreciations

- Got **Note of Appreciation** for Contribution to Unit Test support for L4 in VWBs Project on September 2019 while working in **Robert Bosch Engineering and Business Solutions Private Limited .**
- Got **Note of Appreciation** for flexibility in work while working across multiple project s, meeting deadline and providing exceptional commitment towards assigned work on May 2018 while working in **Robert Bosch Engineering and Business Solutions Private Limited.**
- Got **Spot Award** for demonstrating good discipline and Quality in BRM Testing and Design Activities, Sincere effort in documenting the detailed test setup activities while migrating from RTRT to Vectorcast for the team, Enabled new team member through effective mentoring, Achieved Istqb Advance level on December 2020 while working in **Robert Bosch Engineering and Business Solutions Private Limited.**

SCHOLASTIC ACHIEVEMENTS

- Qualified **GATE (All India Rank) – 228** in the year 2014**.**
- Got All India Rank 1 in **Propulsion-I** (I.C. Engines)
- Got All India Rank 3 in **Propulsion-II (Jet Engines)**
- Got All India Rank 2 in **Aircraft Design**
- Successfully completed the workshop on **Product Design** using **Solid Works** in **CADD Centre**- Adambakkam Chennai.
- Successfully completed the Training Programme On Manufacturing **Process and Practices** conducted by **IGTR , Indore** in 2010.
- Successfully completed **Diploma in Computer Application** with **Grade A in** 2007

PROJECT Details:

1) E Compressor (Electric Compressor):

Description:

The electric compressors are **used for the hybrid and electric vehicle application**. The scroll type compression mechanism is used in order to ensure efficient compression. In addition, low noise impact and low environmental load are achieved by combining with a high-performance motor and inverter.

Operation of the e-compressor

1) Compressor: the e-compressor compresses gaseous refrigerant to high pressure and high temperature. The hot gas is then pumped to the condenser.
   2) Condenser: in the condenser, the gaseous refrigerant is cooled and liquefied by the ambient air.
   3) Expansion valve: the liquid refrigerant passes through an expansion valve where its pressure and temperature are reduced.
   4) The largely liquid refrigerant flows through both the evaporator and chiller, where

the evaporation process takes place.
4 a) Evaporator: heat is removed from the air passing through the evaporator and into the cabin, which is cooled.
4 b) Chiller: the refrigerant circuit and battery cooling circuit are connected via the chiller. This enables the transfer of heat from the battery coolant circuit to the refrigerant circuit.
5) The vaporized refrigerant returns to the e-compressor, and the cycle begins again.

Environment : C language

Tools used : Canoi, CanAppl , renesasflashprogrammer, Oscilloscope, Lin, Real Hardware
Verification methods : Qualification Testing

Roles and Responsibilities:

Write Qualification test Script, Flash the software in Real Hardware, and Perform testing Based on Software Requirement.

2) BRM (Boost recuperation system):

Description:

Boost Recuperation Machine (BRM) transforms any conventional internal combustion engine into an efficient mild-hybrid with minimal effort: The 48 volt BRM replaces the 12V generator on the drive belt (P0 topology), so there is no need for complex and expensive high-voltage protection systems or wiring harnesses.

- Recuperation of braking energy to save fuel and CO_2 emissions
- Extra power via electric boosting
- Comfort start: extremely smooth start/stop operations
- Coasting at high speeds with the engine turned off

As a result, the BRM offers a significant reduction in fuel consumption and CO_2 emissions – up to 15 percent under real world driving conditions

Environment : C
Tools used : IBM Rational Test Real Time (RTRT) 2007 **, Vectorcast Tool, Rhapsody**
Verification methods : Unit Testing, Integration Testing, Detailed Design creation and Review

Roles and Responsibilities:

1)Unit Testing for variants Volvo,platform,BMW,Daimler,Ford
2) Unit Testing Review
3) Creating Unit Design in Rhapsody

4)Detailed Design Review
5)Generating reports and delivering to customer.
6)Involved in Release Activities.

3) EPS (Engine Power Steering):

Description:

EPS uses an electric motor to assist the driver of a vehicle, unlike traditional systems that act on hydraulic pressure provided via a pump driven by the vehicle's engine. This pump is constantly running, whether the steering wheel is being turned or not. That continually places load on the engine, adversely affecting the vehicle's fuel consumption.

By moving to an electric motor the load on the engine is reduced to only those occasions when the steering wheel is being turned one way or the other, therefore producing better fuel economy.

Working of EPS :

An electric motor that is mounted on either the steering column or steering gear (usually a rack-and pinion setup these days) applies torque to the steering column, assisting the driver to turn the steering wheel. Sensors detect the position of the steering wheel and any input from the driver – hauling on the wheel to change the vehicle's direction. A control module applies assistive torque via the electric motor. If the driver is just holding the wheel steady, at the straight-ahead position, the system doesn't provide any assistance.

Environment : C
Tools used : Testarrosa (Robert Bosch Tool)
Verification methods : Unit testing

Roles and Responsibilities:

- Setting MC/DC conditions
- Requirement based Test cases developed and executed using Testarrosa
- Requirement coverage analysis and code coverage analysis
- Detecting and Reporting the software defects found
- Code review and Technical check
- Generate Verification results and verification summary of the software modules

4) Autopilot

Description:

Autopilot is the airborne system which guides a vehicle without the assistance of pilot. An Autopilot helps the pilot for the basic phases such as take-off, cruise, steady state and level flight, descend and the landing phases. The system takes the inputs from Gyroscope, Pitot-static tube, feedback sensors of control surfaces and data from other systems like FADEC, Fuel flow control systems, Navigation systems, Landing gear steering control system, RADARs. Autopilot software is developed and tested as per the guidelines and Objectives provided by DO-178B / ED-12B for Level-software.

Environment : C

Tools used : IBM Rational Test Real Time (RTRT) 2007

Verification methods : Low level testing and Software Integration testing

Roles and Responsibilities:

- Creation of Test scripts and requirement based test cases based on DO-178B objective and guidelines
- Setting MC/DC conditions
- Requirement based Test cases developed and executed using IBM RTRT
- Requirement coverage analysis and code coverage analysis
- Detecting and Reporting the software defects found
- Code review and Technical check
- Generate Verification results and verification summary of the software modules

PERSONAL DETAILS

Name: Amita Dubey
Father's Name: Satya Narayan Dubey
Nationality: Indian
Languages Known: English, Hindi.

I hereby declare that the above statements are true and complete to the best of my knowledge and belief.

DATE: **PLACE: Bangalore**