**Roqueyaa Ali**

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Languages: English, German (Beginner level), Italian (Beginner)

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**PERSONAL PROFILE**

I have completed MSc Automotive Engineering from university of Brighton and Sussex University in March 2013 and presently working for AVL powertrain as a control engineer. Hands on experience on Engine test bed and vehicle level validation test for powertrain control system and hybrid control system. Highly professional with strong analytical and practical engineering skills electronics engineering graduate with extensive of more than 4.6 years’ work experience with an automotive supplier. Self-motivated to continue self-enrichment concerning advancement in automotive technology within the industry. Seeking a better opportunity to build the career in automotive industry.

**PROFESSIONAL EXPERIENCE**

**AVL Powertrain UK** November 2013-Present

**Control Engineer**

Working as part of a development team on hybrid production and demonstrator programs. Responsible to develop the control for various features of the hybrid application (e.g. energy management, control and refinement of parallel and electric mode transitions, Powertrain mode management).Testing of the hybrid control system module using SIL, MIL, powertrain HIL rig, vehicle test. Requirements analysis from the system team and implement the control logic using Simulink/Stateflow using Target link blocks. Also responsible for generate the Simulink code and flash into the target ECU across multiple vehicle programmes. Vehicle level test to validate the Hybrid control software. Update the requirements in DOORS and links with the DVM and vehicle test procedures. Development and execution of robust DVM test such as MIL, HIL based validation.

**Netlink Technical Ltd (http://www.netlink-group.com), UK** Jan 2013-May 2013

**Software Engineer**

Responsible for develop test software and system level tests in different automotive control modules. Specify, and develop software modules for Electronic control unit (ECU) software. Prepare documentation for automated and manual test reports and participate to analyse the customer requirement documents.

**Delphi Automotive Technical Centre, India** May 2008-April 2011

**Software Engineer in General Motor Powertrain Engineering team**

Responsibilities included the hardware Input/output layer development for throttle position sensor module, pseudo-code application development to integrate with application layer software. CAN device driver development to communicate with Electronic Control Unit and all sensors Input and output signals for Powertrain Electronic Control Unit (Gasoline, Diesel, Hybrid vehicle and Transmission Control Unit) for General motor. The powertrain Control modules tested and validated in the Hardware in loop (HIL) Pi simulator dSPACE model based environment. Write test cases to test ECU signals and validate the results based on the customer requirements.

Responsible for engine calibration, aimed at achieving the best consumption and performance targets by tuning the engine control parameters.

Respond to customer queries and problems to the customer’s full satisfaction and maintained all the test results and software modification results using DOORS configuration management tool.

**HCL Technologies, India** September2007-April2008

**Software Engineer**

Responsible for design test software for Boeing 787 aircraft brakemonitoring systems. I was part of a team who were responsible for developing automated test scripts for a part of this system on simulated environments. Responsible for analyse the software design document and requirements before writing the test software. Also responsible for find the software and hardware bugs on the brake monitoring system module. Respond to customer queries and problems to the customer’s full satisfaction and maintained all the test results and software modification results using Polytron Version Control System (PVCS) version manager tool.

**MS Ramaiah School of Advanced Studies, Bangalore, India** January2007-September2007

**Project Trainee**

Responsible for the uupgrade prototype for real time ECG analysis system so that the device can be

predict any malfunction of the heart automatically.

**Technical Skill Set**

* **Languages/Scripts:** C ,Embedded C, Python.
* **IDE/Calibration tools Used**: Kiel uV2, Mikro C, CANalyzer/CANoe, INCA, MDA.
* **Microcontrollers:** 8 bit, 16 bit, 32 bit (MPC565).
* **Simulator:** Pi- AutoSim, Test drive, AVL engine test bed software.
* **Compiler:** Wind River (Diab), CodeWarrior.
* **Debugger:** Lauterbac, Oscilloscope.
* **Embedded networking:** CAN, FlexCAN.
* **Configuration management:** Doors.
* **Packages:** MS-Office 2010.
* **Design and analysis:** MATLAB/Simulink/Stateflow/Targetlink

**KEY SKILLS SUMMERY**

* Automotive Embedded Software development.
* Simulation using test drive and Hardware-In-the Loop development/verification for automotive products.
* Automotive sensor development and testing.
* Experience of various Automotive ECU, CAN & LIN protocols, and vector Test Automation Editor (TAE) using CANalyzer/CANoe & MATLAB/Simulink test & design tools.
* Experience on flashing using CAN tool and use of debugger like JTAG, Trace32 emulator.
* Experience on calibration procedures and diagnostics tool set (DTS).
* Knowledge of diagnostic protocol like J1939, GMW31122.
* Experience on execution of test applications (Unit Testing, Integration testing, functional testing).
* Implemented V-Model product life cycle methodology for the software development.
* Experience of running engine test on AVL dynamometer.
* Experience of engine test analysis and understanding of internal combustion engine.
* Knowledge of ISO26262 safety related automotive application standard.
* Experience of analysis software requirement and writing test cases and test scripts to execute it. Peer review the test cases and test scripts results after execution.
* Worked for automotive safety diagnostic requirements to write test scripts and execution.

**EDUCATION**

The Universities of Sussex and Brighton, UK 2012-2013

MSc Automotive Engineering with Merit July 2013

**Module studied**

1. Vehicle Design

2. Automotive Power Technology

3. Turbo machinery and Turbocharging

4. Automotive Control Systems

5. Powertrain and engine testing

6. Engine testing

7. Advanced manufacturing technologies

**MSc dissertation:** Design engine model using NEDC (New European Drive Cycle) in MATLAB, analysis the data and modify the simulation results to validate the test the model with data from a dyno engine test bed. The output of the simulation result will feed to the AVL engine test bed software to validate the engine model. Measured engine data from high speed test bed data acquisition system and test cell software. Simulate the steady state and transient response of the vehicle model.

University Institute of Technology Burdwan University, India 2001-2005

Bachelor Degree in Electronics and Communication engineering

Result: 66% first division

Professional Certification: Advanced Certified Training Program for Embedded System Design from M.S.R.S.A.S., Bangalore, India in the period of June, 2006 to December, 2006.

**INTERESTS**

I swim regularly for enjoyment and to keep fit. I especially prefer travelling to see nature also meeting new

people and cultures and doing any kind of volunteering work.

**REFERENCE**

Available on request