**CURRICULUM VITAE**

**Personal Details**

**Name:** Mohsin Khan

**City of Residence:** Birmingham

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**Citizenship:** British

**SC:** Yes

**Education**

**Name & Address Dates Subjects/Course**

Birmingham City University 2005-2006 MSc Software Technology

(University of Central England) (Software Engineering)

Technology Innovation Centre **Classification:** Distinction (1st Class)

Millennium Point

Curzon Street

Birmingham

B4 7XG

Birmingham City University 2002-2005 BSc (Hons) Software Engineering

(University of Central England) **Classification:** 2:1 (Hons)

Faculty of Computing

Information & English

Perry Barr

Birmingham

B42 2SU

**Contracts**

**Company Name & Address:** GE Aviation Ltd, Bishops Cleeve, Cheltenham, Gloucestershire GL52 8SF.

**Dates:** August 2015 – November 2016.

**Job:** Systems Engineer.

**Description:** At GE Aviation I worked on the verification of the RIU (Remote Interface Unit) product on the DCN (Data Concentrator Network) project for use on the Gulfstream Touchdown aircraft. The RIU is a generic configurable product which takes in information from the myriad of sensors fitted within the aircraft, processes and presents these in digital format on to the ARINC network for use by other aircraft systems.

I worked on the non-configurable element of the RIU product known as the BIT (Built-In-Test) and Housekeeping. The BIT function is used to detect and report specific faults within the RIU and the Housekeeping function is used to ensure correct operation of the RIU. I carried out the following work in this area:

* Requirements verification.
* Writing test procedures.
* Test procedure reviews.
* Performing systems tests.
* Writing/updating test procedure scripts and executing them.

Tools Used:

* IBM Rational DOORS.
* Serena Dimensions.
* Windriver ICE 2 JTAG Debugger/Emulator.
* Wireshark Network Protocol Analyzer.
* Breakout box.

**Employment**

**Company Name & Address:** ZF-TRW Automotive, Stratford Road, Shirley, Solihull, B90 4GW.

**Dates:** March 2014 – July 2015.

**Job:** Systems Test & Validation Lead Engineer.

**Description:** From my experience as a Senior Software Systems Engineer (see below) I was given the role of being the lead test and validation engineer for EPS (electric power steering systems) at TRW Automotive. The role required me to be the interface between the Test & Validation Department and the Product Application teams to validate and verify the steering products to product launch. This involved me exhibiting knowledge of the product requirements and particularly the means to validate and verify that they were met by way of a comprehensive test program. The role required advanced planning, problem-solving skills and the technical knowledge and the ability to control multiple synchronous activities.

My role involved preparation, management and coordination of EPS samples through various validation and verification steps and to analyse and understand the test results and to document this in a final report. I would then participate in the system sign-off meetings within senior engineers/managers to allow the EPS to be used by customers for test track and production vehicles.

I regularly conducted multiple releases for the various variants of EPS. This role also involved working with TRW colleagues in North America to carry out the necessary test work and sign-off at Shirley for them.

Most tests were performed on system benches and test rigs and occasionally within test vehicles by myself and some tests were performed by specialist technicians on test rigs which I had to organise with them. I also setup hardware and debugged hardware issues to allow testing on system test/test rigs benches including flashing of software onto electric power steering systems. From time-to-time I was involved in the integration/diagnostics tests. This role involved regular usage of the Vector tools (CANape, CANalyser, CANflash, CANcase XL).

**Company Name & Address:** ZF-TRW Automotive, Stratford Road, Shirley, Solihull, B90 4GW.

**Dates:** March 2011 – March 2014.

**Job:** Senior Software Systems Engineer.

**Description:** As a Senior Software Systems Engineer working within the Functional Integration Team my responsibilities concerned the development, integration testing and release of embedded software for Electric Power Steering systems. I was involved in several projects for Fiat vehicle manufacturer for their European, North American and Chinese vehicle variants of the Fiat 500 model.

My activities and experience include:

* Translating customer specifications into software requirements documents for implementation by the software team and working with the software implementation team to ensure that all software deliverables are meet.
* Reviewing software implementation and performing system level testing and engineering issue resolution.
* Resolving issue related to released software reported back from Fiat and our colleagues in Turin, Italy and making improvements to existing functionality.
* Knowledge of CAN bus communication and diagnostics over CAN and using the Vector tools CANape, CANalyzer, CANcase XL and CAPL scripting for integration testing & diagnostics.
* Flashing software onto Electric Power Steering systems using Vector CANflash.
* OBD (On-board diagnostics tools) knowledge.
* Updating documents using IBM Rational DOORs/Synergy and all other related activities to get requirements and testing documents released.
* Involved in design reviews with other team members for Fiat/Core development activities.
* Working with the Control Team to develop and evaluate new algorithms, in particular helping with the introduction of tune files for specific vehicle characteristics.
* Answering queries, supporting and resolving issues for persons outside of my team concerning both Fiat and non-Fiat issues.

**Company Name & Address:** GE Aviation Systems Ltd, Bishops Cleeve, Cheltenham, Gloucestershire GL52 8SF.

**Dates:** September 2008 – March 2011.

**Job:** Software Engineer.

**Description:** As a Software Engineer who has completed the GE Aviation 2 year graduate scheme working within the aviation industry my responsibilities involved working with software requirements, design,  carrying out implementation using C/C++ and testing of safety-critical real-time embedded software.

All tasks that I carried out were in accordance to company Software Lifecycle Flow Chart Procedures which have been produced to the DO-178B Software Considerations In Airborne Systems and Equipment  Certification standard. The Software Lifecycle Flow Chart Procedures specify how to carryout out requirements analysis, high level design, detailed design, implementation and software testing.

The project that I was involved with at GE Aviation was on the Integrated Standby Indicator System which is an independent backup flight display device where I was part of many deliveries made to both military and civil customers. My role involved me working individually and as a part of team which consist of project, software and system engineers.

My main activities on this project were to setup/facilitate and participate in software technical reviews, produce software documents, perform design/code updates/scrutinies, carryout traceability checks against both software/system requirements and perform module testing using LDRA Testbed.

**Company Name & Address:** Data Development Services Ltd, Blythe Valley Innovation Centre, Central Boulevard, Blythe Valley Park, Shirley, Solihull, West Midlands, B90 8AJ.

**Dates:** February 2007 – September 2008.

**Job:** Software Engineer/Programmer.

**Description:** My role as a Software Engineer/Programmer involved maintaining and updating various software packages for the company. Data Development Services produces software for the auto-parts aftermarket and is a main supplier of software for the United Kingdom Parts Alliance. On a daily basis I resolved errors and bugs with existing software and also add new functionality based on requirements. This involved working individually, as a part of team and also involves liaising with customers. I had also been made responsible for ensuring that one of the main software packages works under the Windows Vista Operating System which is a significant undertaking and which I had completed successfully. The development environments I work in are Visual Basic 6, .NET and Access Database Applications and also MySQL Databases. I had also been involved in several different integration projects where I had worked with third-party software vendors in order to create software solutions for our customers.

**Company Name & Address:** Achiever Software, Ashted Lock, Aston Science Park, Dartmouth Middleway, Birmingham, B7 4AZ.

**Dates:** July 2006 – November 2006 (Student Placement)

**Job:** Software Engineer.

**Description:** As part of MSc Software Technology degree I was required to complete a project placement at a software company. I managed to secure a project placement at Achiever Software for the duration of my Masters project. My role as a Software Engineer at Achiever Software involved me integrating Microsoft Outlook with Achiever Software’s CRM system (Achiever Anyware).

Integrating Microsoft Outlook with Achiever Anyware required knowledge of Microsoft .NET, SQL, Visual Basic 6, Exchange Server, Web Services, the WebDav technology and the Achiever Anyware CRM system. It was required of me to gain a high level of understanding of each of the technologies mentioned some of which I had no previous knowledge in order to complete the project in the short time given.

My day to day activities involved me understanding API documentation, researching ways to complete specific requirements and to then apply knowledge gained from the research and analysis to complete the requirements of the project.

The project has proven to be a success where the project requirements have been fulfilled. A lot of knowledge and important experienced has been gained from completing the project and proved to be invaluable.