Terry Mackenzie

**Experience Summary**

C# .Net, C++, MS SQL Server SSRS (reports), MySQL, Misra ANSI C, LINQ, Windows Forms, WPF, Browser Application in XAML, MVVM, MVC design patterns, Razor, Knockout js, Visual Basic MS Access (VBA), TFS, HTML. I specialize in real time multithreading window functionality to control automatic test equipment that has to be simple and intuitive to use and still deliver complex test functionality. Coming from a hardware design background I have extensive knowledge of hardware systems including high voltage switch mode power supplies, RF systems, analogue and digital logic systems and test equipment associated with them.

Development Environments and Tools:

.NET, Visual Studio, Team Foundation (TFS), AllChange, DOORS, Integrity MKS, UML modeling, OOA analysis and design, MATLAB Simulink, LabView. Vector CANape, CANalyzer. Experience working within continuous integration TDD, BDD development environments and more formal highly regulated development within automotive SPICE and 26262.

**EMPLOYMENT RECORD:**

**Software Systems Developer Alexander Dennis – June 2015 to current day**

Responsible for development of line of business application related to production test, work flow process reporting and development status. Migration of legacy systems based on MS Access to SQL. Application development using WPF and MVVM design pattern. Development of unit test environments for CAN Bus systems using CANalyzer. Systems requirements capture and test plan creation.

Experience gained in WPF, Razor, Knockout js, MVVM design pattern, LINQ to SQL, SSRS reporting, SSMS, TFS, WCF and occasionally connected DB using (localDB)v11.0 and Compact Framework, J1939 CAN Bus systems.

**Business Application Developer Cobb Lloyd – January 2015 to June 2015**

Reporting directly to the owner manager I was responsible for requirement capture, design and implementation of business applications to manage all aspects of the company’s business activities and make contracts costs and profitability available through clear reports.

Experience gained in process modelling in UML, Visual Studio, C# Windows Forms, MS Access and VBA, MS SQL and SSRS (reports), TFS.

**Requirement Capture TRW – August 2013 to December 2014**

Electronic power steering requirement capture and product development and test definition within an automotive SPICE development environment to ISO26262, DOORS Vector CANape and CANalyzer. Extensive use of Visual Studio and C++.

**Software System Engineer Zytek Systems March 2006 – August 2013**

Responsible for the design and implementation of production test ATE and product validation test tools for electric and hybrid motor systems. The implementation required creation of responsive real time Windows and WPF Forms GUI created in C#, XAML, C++ and LabView Vi and connecting these systems together and to the target system over network TCP-IP and CANbus links. Experience gained with XML and WPF.

Experience gained with C#, Matlab Simulink HIL VB, MS SQL and MySQL. Vector measurement control and diagnostic tools XCP, CAPL CAN/Flexray, CANopen, LINQ, XML definitions system e.g. ODX, Fibex.

**Software Test Engineer Smiths Cheltenham November 2005 – February 2006**

Responsible for modelling and white box testing of safety critical aerospace software systems.

Experience gained in the use of Hitex ICE and C166 assembler, Matlab and Simulink.

**Software Engineer Zytek Systems March 2001 – April 2005**

Responsible for the development of MG Rover’s 68K based engine controllers and production and development support tools. Responsibility included tracking change request and agreeing implementation time scales with the customer. Formulating statements of work and quoting against customer requirements. Generating detailed requirements capture and analysis, detailed system designs, test plans and procedures.

Technologies: 68K macro assembler, Unix C, Microsoft Visual C++.

**Software Engineer Pi Technology April 2000 – December 2000**

Real time software development for vehicle engine management systems. Responsible for the development and design of engine management system strategies for high performance motor vehicles. Matlab, Simulink, C software for Power PC 555 and 68K processors.

**Team Leader Lucas (TRW) Automotive February 1991 - April 2000**

Responsible for creation of project plans and progressing work packages. I worked directly with the end customer on requirement capture and analysis of requirements relating to data communication between vehicle diagnostic test equipment and components system within vehicles. These systems were implemented mostly in 'C' and assembler on various hardware platforms.

**System Development Engineer Plessey Naval Systems October 1988 - February 1991**

Design of large-scale logic systems using Pals, as a part of an update to a Naval Radar display system. The simulation of this logic on Daisy work stations. Commissioning various communication systems associated with this system.

**Hardware Systems Engineer Dowty Maritime Systems Limited July 1988 - October 1988**

Responsible for the design of SCSI interface for the iSBX port of Multibus II 80386 systems board, low level programming of this interface using PLM386 and integration of this system with Ada software.

**Hardware Systems Engineer Dowty September 1985 - July 1988**

As a senior member of a small design team I was responsible for the planning design implementation installation and commissioning of a mobile data radio communication system that covered the Greater London area.

**A Number of positions including**

Full apprenticeship at PYE. Radar hardware development with Marconi. RF design of TV system with Cabletime.

**QUALIFICATIONS:**

* High National Certificate Electrical and Electronic Engineering
* Electrical and Electronic Principles
* Industrial Electronics
* Communication Systems
* City & Guilds in Telecommunications