Daniel Stewart’s Curriculum Vitae

**Name:** Daniel David Stewart

**Current Job Title:** Lead Software Engineer

**Nationality:** British

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Hullavington

Chippenham

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**Recent Skills and Responsibilities:**

**Designing and Developing Embedded Software Functionality:**

* Reviewing, modifying and releasing embedded C code for a legacy product line, using the SNiFF+ IDE for deployment on an ARM9 platform. Including WISP+ and DNP3.0 interfaces.
* Reviewing, modifying and releasing C code for a modern product line, using the Eclipse IDE for deployment on an embedded Linux platform.
* Introducing error handlers and value added features to existing code.
* Developing agile backlogs and a team Wiki of knowledge using Team Forge.

**Production Support:**

* Modifying and re-configuring production BSP’s for ARM9 processors using the Ronetix Peedi JTAG device.

**Web Applications:**

* The maintenance and modification of an existing web application, using Npm, Grunt and Bower.

**Process Improvement:**

* Striving to improve Cyber Security and Resilience as Cyber Security champion, including attending seminars and liaising with UK Cyber Security experts and customers requiring support. Organisation of all site Cybersecurity meetings and reporting to the management team our findings.
* Presenting and introducing Agile development techniques to the business.
* Introducing and developing automated testing techniques using Jenkins scripts (for Windows and Linux).

**Registered STEM Ambassador:**

* Attending schools to discuss career prospects.
* Mentoring graduates on short term placements.

**Previous Skills and Responsibilities:**

**Software Development Management (2014 – 2017):**

* Leading small teams of software engineers.
* Scrum Master for Agile development projects, managing software team dynamics, buddy programming and Agile development.
* Defining software requirements according to high level system requirements.
* Creating concept and functional design documentation, including UML diagrams where appropriate, using Enterprise Architect.
* Organising and conducting code reviews and running code using LDRA.

**Software Design and Implementation (2010 – 2017):**

* Reviewing, modifying and releasing C, C++ code using the Momentics (Eclipse based) IDE for deployment on an embedded platform running QNX.
* Source code managed through Tortoise SVN and unit tested using Jenkins.
* Fault finding and writing tests for proving releases of software.
* Reviewing and developing Python and C# applications used as in-house development, analysis and test tools.

**Communication and Protocols experience:**

* Daily experience of networking and communications over Ethernet (UDP and TCP/IP).
* Regular experience of reviewing and debugging CANOpen interfaces, including reviewing third-party ESD files against CiA guidelines.
* RS232, RS485 and RS422 communication used for debug and development when required.

**NI TestStand Developer (2007 - 2010):**

* Experience of integrating the TestStand API with Visual Studio and LabVIEW applications.
* Choosing and configuring TestStand architectures for maximum efficiency.
* Developing TestStand components to fit in with a modular system.

**NI LabVIEW Developer (2002 - 2011):**

* Experience of designing and developing LabVIEW applications using advanced architectures.
* Training design engineers to a LabVIEW basics level, followed up with one to one mentoring.
* Portfolio of LabVIEW applications for a wide variety of test engineering requirements.
* Experience of using Demon VIs, Object Orientated LabVIEW, Express VIS and Polymorphic VI design.
* Design of software using UML 2.0 using Microsoft Visio.
* Source Code Control experience using Borland Star Team.

**Experienced Development Test Engineer:**

* Responsible for design and management of a test rig development team.
* Creation of test strategies, software design and creation and analysis of test data.
* Writing and debugging a variety of windows based software.
* Target Specifications and international safety standards, plus supporting documentation results templates.
* Design and development of Microsoft Visual C++ applications.
* Development of advanced Microsoft Excel VBA Macros to enable analysis and quantification of test data.

**Hardware & Electronics:**

* Extensive experience of PCs and a wide range of software utilities.
* Design and development of small test rigs using PIC and STAMP chips.
* A good basic understanding of electrical and electronics theory.
* Extensive hands-on experience of the following interfaces: USB DAQ, RS232, RS485, GPIB, PCI DAQ, PXI, Bespoke PCBs.

**Technology scouting:**

* Have spent a year scouting new technologies, updating research onto an internal WIKI website using HTML code.

**Health and safety:**

* Qualified risk assessor with regular experience in a multitude of scenarios and have become an advisor to others on safety matters.
* Previously qualified first aider (12 years), not currently registered.

**Other:**

* Clean UK driving licence.

**Career Development:**

**April 2009 -** British Red Cross First Aid At Work Refresher.

**November 2008 –** QNX Software Systems, Advanced Realtime Programming for the QNX Neutrino RTOS.

**September 2008 –** CiA (CAN in Automation) CANopen training.

**August 2008 –** National Instruments, TestStand 2 Customisation.

**August 2008 –** National Instruments, TestStand 1 Fundamentals.

**July 2007 –** LabVIEW Advanced Architectures Training Course.

**July 2006 –** Borland StarTeam Training Course.

**May 2006 –** British Red Cross First Aid at Work Course.

**October 2005 –** Feabhas Embedded Software Design using UML2.0.

**February 2005 –** University of Glamorgan Electrical Wiring of Machines Course.

**October 2004 –** National Instruments, LabVIEW Intermediate 2.

**October 2004 –** National Instruments, LabVIEW Intermediate 1.

**September 2002 until July 2005 –** Microsoft Certified Software Engineering Course (HND equivalent).

**August 2002 –** Health and Advisory Service Ltd. Risk Assessment Course.

**November 2001 until May 2002 –** City and Guild in Pascal 2.

**November 2001 until May 2002 –** City and Guild in Pascal 1.

**November 2001 until May 2002 –** City and Guild in Computer Programming.

**September 1995 until May 1997 –** Studied for a National Diploma in performing arts, focused around recording studio techniques, sound engineering and performing as a musician.

**May 1995 –** Left Senior School having completed GCSEs with grades C and above in Science, Maths, English and Music.

**Current employment:**

***(2017-Present) Schneider Electric, Langley Park, Chippenham, Wiltshire SN15 1GG***

I currently work for Schneider Electric EAC (Energy Application Centre), primarily as a Senior Embedded Software Engineer, Designing and Writing embedded software functions for the new products and maintaining code for legacy products. I have also been involved as/when required with the development of web application and improving the business processes.

Since starting working for Schneider Electric I have championed Cyber Security and have built a strong understanding and supported the business by identifying and creating Cyber Security policies based around the NIS Directive, ISO27001 and IEC 62443-2-4.

I have also been the sole person configuring Firewalls between OT and IT networks. This included port hardening, defining firewall rules, White listing and Black listing of devices on networks and creating passwords and permissions.

As part of my role I have supported customers at their sites, installing and integrating the embedded software with SCADA and electrical switch gear.

Outside of work commitments I am currently chairman of the Schneider Electric Chippenham Photography Club.

**Previous employment:**

**(2007-2017) GE Oil & Gas (Previously Vetco Gray Controls), 2 High Street, Nailsea, Bristol BS48 1BS**

From 2007 to 2017, I worked for GE Oil & Gas, an innovation leader in the development of Sub-sea Oil and Gas control systems.

I started at GE as a senior software engineer, but gained promotion in 2013 to Lead engineer; taking on the additional responsibility of leading projects. In 2015 GE committed to Agile development and my role was to regularly switch between being the lead engineer and/or acting as the scrum master, depending on the project.

My role included defining and maintaining appropriate architecture documentation and development of embedded software solutions using C and C++, with some C# code written for applications when required.

I gained a strong understanding developing embedded software and have also written software in C for an FPGA core. The embedded software was written to the MISRA C 2012 standard, checked using the LDRA tool and SVN used for source code control.

Prior to becoming Lead Engineer, my Senior Engineering role included developing new products, specialising in providing software required for testing new products. I worked within a team of software engineers, some developing software remotely abroad, and worked closely with experienced hardware engineers to ensure efficient Hardware/Software integration. I designed test solutions using C#, Test Stand and C++, which used parallel processing to ensure testing throughput for production was more expedient and removed the dependencies involved in a sequential solution.

I went to GE with many years’ experience communicating using IEEE488.2 (GPIB), RS232, RS485 and RS422 protocols. Once at GE I gained experience of building CAN messaging and creating CANOpen SDOs and PDOs. I also learned a lot about Ethernet topologies, UDP communications and TCP/IP communications.

Outside of work commitments, I was chairman and co-founder of the GE Oil & Gas Photography Club and participated in fundraising events with colleagues.

**(1998-2007) Dyson Ltd, Tetbury Hill, Malmesbury, Wiltshire SN15 4TD**

As a Software Design Engineer with a market leader in domestic appliances I carried out product development, testing and research. This involved assisting in the development of new products and evaluating their performance against target specifications and industry standards. PC-based data acquisition, automation, analysis and documentation were a crucial part of the role.

I had been programming in LabVIEW for seven years and trained to an Advanced Level by National Instruments. I gained extensive experience of planning and writing advanced applications for data acquisition and hardware interfacing and trained groups of associates within Dyson to a LabVIEW basics level.

Being a Development Test Engineer required excellent organisational skills and self-motivation. I also enjoyed being part of a team and helping my colleagues to work more effectively.

**(1996 – 1998) Whitbred Group, Marriott Hotels**

I worked for Marriott Hotels (part of the Whitbred group) as a silver service waiter part-time whilst still studying at college, which funded touring around the UK with different bands as a musician and sound engineer.

**(1995 – 1996) Biomet Ltd., Dorcan Industrial Estate, Swindon**

I worked for Biomet part-time whilst at college and there I provided a solution for converting existing employee records and details into an electronic format using a scanner and custom software which distributed elements of each employees data into a database.

I also worked for a while in the drafting department using drawing boards and TurboCAD to generate 2D drawings.

**About me:**

**Higher Education:** *MCSE software engineering (equivalent to a HND).* This was a four-year home study course which covered Visual C++, Visual basic, SQL databases, Pascal, Delphi, Cobol and Fortran.

**Hobbies and Interests:** I have a 3 year old daughter that takes up much of my time, but when I have the time I enjoy photography ([www.danieldstewart.co.uk](http://www.danieldstewart.co.uk/)), astronomy, reading and listening to music.

I also have a keen interest in science, new technologies and meteorology.

**References:** ***Please give notice before using these references***

**Industrial Reference:**

Adam Clemo, Resourcing and engineering team Manager, Schneider Electric, Langley Park, Chipenham, Wiltshire SN15 1GG

**Character Reference:**

Michael Cripps, Retired Police Officer, 14 Home Ground, Royal Wootton Bassett, Wiltshire. SN4 8NB