

Neil Breakwell

phone: +44-1332-835743

e-mail: neil_john_breakwell@hotmail.com

<http://www.neilbreakwell.net/pdf/Resume.pdf>

39 Burdock Close

Oakwood, Derby DE21 2BX

United Kingdom

PROFILE

A degree-qualified Engineer, with experience in hardware and software system-level and component-level design, test and development, and component-level repair work in the aerospace and automotive industries. Having demonstrated supervisory and organizational skills, in addition to a wide variety of knowledge and experience in related disciplines. Readily adaptable and keen to learn and now seeking an opportunity to use and further develop skills in a challenging environment.

KEY SKILLS AND EXPERIENCE

Technical

- In-depth knowledge of aerospace and automotive control systems as well as related components
- Extensive practical experience of electronic hardware and real-time embedded software design and testing both at component and system integration level
- Experienced at designing software architecture and at programming using low-level and high-level languages, including MATLAB, ADA, Python, C++, Visual Basic, Microchip PIC Assembler
- Familiar with serial data communication standards, including I²C, SPI, CAN, MIL-1553 and ARINC-429
- Familiar with HTML coding and web site design
- PC-literate and proficient at using Microsoft Windows and popular applications such as Microsoft Office
- Familiar with industry-standard software configuration management tools, including PTC Integrity, PVCS, DOORS
- Familiar with working to industry standard procedures, including DO-178B

Personal

- Clear and confident communicator, skilled at presenting information both verbally and in written form to all levels of staff, including formal presentations
 - Excellent administrative and organizational skills, including supervizing technical staff
 - Conscientious and resourceful individual with a methodical efficient approach to problem solving
-

QUALIFICATIONS AND TRAINING

DeMontfort University, Leicester, United Kingdom

BSc Electronic Engineering

1981 to 1985

The Ecclesbourne School, Derby, United Kingdom

3 x 'A-Level' certificates: Physics, Chemistry, Mathematics

7 x 'O-Level' certificates: including English and Mathematics

1974 to 1981

CAREER HISTORY

Rolls-Royce plc & Controls and Data Services

2004 to present

A manufacturer of civil and military aero-engines and industrial power systems.

- Planned and performed system level testing for control software on high-integrity electronic engine control units in accordance with DO-178B, using the Company's System Test Rigs and produced documentation to support system release.
- Supported system integration testing and subsequent flight testing for control system software upgrades. This involved travel to a customer's site in the U.S. (Bombardier's Flight Test Center in Wichita, KS) to support their testing activities and to act as an on-site point of contact between the customer and Rolls-Royce. This support was well-received by the customer, as evidenced by the fact that I was asked to return on two occasions following my first visit.
- Supported qualification of engine components for new engine by liaising with suppliers and other Rolls-Royce departments, reviewing and supporting the production of qualification test plans and other documentation required for engine certification. Also ensuring that Rolls-Royce procedures are followed to support the introduction of new engine components for use the Company's products.

Data Systems and Solutions

2000 to 2004

A provider of software services and systems for high-integrity and safety-critical applications. A joint-venture company between Rolls-Royce plc and SAIC.

- Designed, assembled, maintained and supported test rigs, ensuring the continued availability of suitable equipment to meet the planned software testing program.
- Performed independent reviews of software and test scripts for high-integrity applications, to confirm that requirements are all covered and tested and that the software conformed to the agreed standards.

Blue Streak Europe Limited

1996 to 2000

A provider of test and repair services for automotive electronic control modules. A joint-venture company between Intermotor Limited in the UK and Blue Streak Electronics in Canada.

- Set up a joint venture company to test and repair automotive engine control modules (ECMs) for the aftermarket. This joint venture company was modelled on Blue Streak Electronics near Toronto, Canada and responsibilities included travel to the Canadian site to gain an understanding of how all aspects of the operation worked there and return to the UK to oversee the establishment of Blue Streak Europe Limited and act as its General Manager once established. The work involved a great deal of hands-on technical work, including the development and maintenance of dedicated test rigs and selecting and procuring suitable workshop equipment for the Company's factory as well as developing my planning and leadership skills by selecting, training and managing suitable technicians for the operation.

Rolls-Royce plc

1985 to 1995

A manufacturer of civil and military aero-engines and industrial power systems.

- Designed, developed and commissioned custom electronic instrumentation systems and software, to meet specific instrumentation requirements on engine test beds. Also produced technical documentation for these products and trained personnel in their use.
- Produced test procedures for engine control units and performed these tests on rigs, ensuring that the units behaved as defined by their requirements.
- Performed technical design activities for aero-engine control systems and individual units, including producing requirements documentation, interface definition documentation between engine and aircraft, reviewing supplier designs against requirements, performing reliability and safety analyses and producing reports to support engine certification.

OTHER INFORMATION

Hobbies and Interests

- **Electronics and Computers**

I maintain a personal interest in electronics and computing and I have been involved in a number of spare-time activities and projects in this area, including teaching myself Microchip PIC Assembler and Visual Basic programming, which I have used in:

- design and development of a PC-based automotive ECU test rig for a local Company
<http://www.ecugenius.co.uk>
- design and development of a range of custom digital automotive dash electronics for the hobby/custom car market
<http://www.neilbreakwell.net/koe>

- **Travel**

I enjoy travel, especially to the US, Canada and New Zealand.

Personal Information

Nationality: British
Place of Birth: City of Derby, England

Driver's Licence: full
Date of Birth: April 3, 1963