**PHIL ROGERS**

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| **Skills Summary** | **Skill level** | **Experience** | **Last used** |
| C# .NET | Very Good | 6 years | Current |
| Visual Basic .NET | Good | 5 years | Current |
| Visual C++ | Good | 6 years | Current |
| Qt (using C++ and Javascript) | Good | 1 year | 2 years |
| Javascript, ASP | Average | 2 years | 1 year |
| Delphi (all versions from 1 to 10) | Expert | 20+ years | 2 years |
| C++ Builder | Good | 5 years | 5 years |
| Java | Basic | Training | 10 years |
| Agile | Good | 2 years | Current |
| Enterprise Architect / UML | Good | 12 years | Current |
| TFS, Subversion, Surround | Good | 20 years | Current |
| SQL, ODBC | Novice | 2 year | 2 years |
| HTML, DHTML, CSS | Good | 2 years | Current |
| XML | Good | 7 years | Current |
| Inno Setup | Expert | 5 years | 2 years |
| Windows | Very Good | 20 years + | Current |
| Microsoft Word | Very Good | 20 years + | Current |
| Microsoft Excel | Very Good | 10 years | Current |
| GUI design | Good | 10 years | Current |
| wxWidgets | Average | 1 year | 6 years |
| GPS NMEA-0183 | Good | 1 year | 6 years |

**QUALIFICATIONS AND TRAINING: ESTABLISHMENT/TRAINER**

* Object Oriented Software Technology Open University
* Software Development for Network Applications Open University

B.Sc. (Hons.) Computer Studies University of Brighton

A-Levels: Mathematics, Engineering Drawing and Design Wellingborough Grammar School

10 x GCE O-Levels

Microsoft T-SQL Advanced

PanIntelligence PanIntelligence

Select Enterprise UML Select

PVCS Intersolv

Systems Analysis aDes Ltd.

Project Management / Product Development Sema Group

**OTHER INFORMATION:**

Driving licence and own transport

Licenced to operate a tracked excavator (< 10 tonnes)

I.Q. 159 (top 1% - Cattell B scale, certified by Mensa)

**Contact**

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**Heatric, Holton Heath, Poole Jul 2018 – Oct 2019**

Application Software Developer

**Heatric Design Interface (HDI)**

HDI is a tool to assist engineers to design Printed Circuit Heat Exchangers (PCHE), intended to replace a set of spreadsheets in Excel and Quattro Pro, which are used to make mechanical and thermal calculations.

Environment **VB .NET, WPF/XAML, MVVM, Visual Studio**

* Implementation of models of components of the heat exchanger
* Creation of 3D visualisations of the components
* Analysis of formulae and of VBA code in the original spreadsheets
* Implementation of mechanical calculations for the components
* Creation of XAML display templates for component properties

**Prolec Ltd, Poole Aug 2016 – June 2018**

Application Software Developer

**TrackPilot Safety System Display Computer**

TrackPilot is the new-generation safety system for excavators and other construction machinery.

Environment **C++, Javascript, QML, Qt, Linux, J1939 CANbus, Enterprise Architect, IEC 61508**

* Requirements gathering for the display computer software
* Design authority for the display computer.
* Design of the architecture for the display computer
* Design of screen layouts for display computer
* Design and implementation of the display computer software using the cross-platform Qt library.
* Documentation to IEC 61508 standard, implementing the full V-model.

**Prolec Web Tools**

Prolec web tools are utilities used by customers of Prolec safety systems.

Environment **Javascript, ASP.NET, Visual Studio**

* Modernisation and simplification of the existing online tools
* Implementation of secure login links to enable customer websites to link directly into the online tool accounts.

**Excavator tool recognition system**

An investigation into the viability of the use of RFID tags to automatically identify tools attached to excavators.

Environment **J1939 CANbus, PEAK CAN interface**

* Investigation of the availability of RFID tag readers that operate on a CAN bus.
* Experimentation with RFID tags and readers in a hostile environment.

**Development utilities**

* Implementation of a number of development and test utilities in C#.

**Advanced, Bournemouth Aug 2012 – July 2016**

Senior Software Engineer

Exchequer Accounts Software

Exchequer is an award-winning accounting and financial software solution for small to medium-sized enterprises, which includes core accounting, distribution, stock and sales order processing, and analytics.

Environment: **Delphi, C#, .NET, Visual C++, MS TSQL, XML, Inno Setup, Agile, REST, LINQ, Entity Framework**

* Design and implementation of new features for Exchequer.
* Code Analysis of Exchequer legacy code and correction of defects.
* Design and implementation of bespoke plug-ins for customised functionality.
* Design and implementation of a credit card payment gateway using REST.
* Design and implementation of automated submissions of VAT returns to HMRC.
* Design and implementation of Installer package for Business Intelligence add-on.
* Mentor to junior team members.

**Sonardyne Wavefront Ltd, Sherborne Apr 2007 - Aug 2012**

Software Engineer

Sentinel Swimmer Detection Sonar

Sentinel is a multi-head sonar designed to detect swimmers and divers. It is used to protect naval bases, marinas etc, from terrorist threats.

**Solstice Sidescan Sonar**

Solstice is a state-of-the-art side-scan sonar used to detect objects on the sea bed at ranges up to 100 metres.

Environment: **C#, .NET, Visual C++, Delphi 2009**

* Design and implementation of the user interface for the Sentinel sonar using C#, Windows Forms and WPF.
* Creation of a chart editor using Delphi to create a library consisting of fragments of maps and satellite images which are then seamlessly stitched together to produce a background image.
* Design and implementation of a viewer server to build a "waterfall" sonar image. This image data is then distributed to client viewers on the network. The displayed image can be zoomed and scrolled in all directions. Additionally, the size of objects seen on the sea-bed may be measured.
* Creation of various simulators to allow real-time testing of products under development, including a sonar head simulator and an Inertial Navigation System simulator.

**Wayfarer Systems Ltd (now Flowbird), Poole**

**Software Engineer Jan 2006 – Dec 2006**

Wayfarer Ticket Machines

Wayfarer ticket machines are used on public transport worldwide.

Environment: Visual C++, Visual Basic .NET.

* Identified and corrected the cause of intermittent data loss from a contactless smart-card reader.
* Addition of ITSO contactless smart card handling to ticket machines.
* Design and implementation of a development environment for the creation and configuration of bus ticket machine firmware. This was implemented as a plug-in for Visual Studio.
* Creation of a bus ticket printable layout designer which generated code that runs on the target hardware.

**Home Office Immigration & Nationality Directorate, Croydon Aug-2005 – Sep 2005**

Software Engineer

Refugee and Asylum Seeker application processing simulation.

Simulation of the arrival, application and processing of refugees and asylum seekers.

Environment: Simul8

* Design and development of a simulation to model Home Office asylum applications.

**Siemens Transportation Systems Ltd., Poole, Dorset Jan 2004 - June 2005**

Software Engineer

Train Radio System for Norwegian Railways.

Voice and data communications for train drivers, guards, signalmen and line workers.

Environment: Visual C++, MFC, Rational Rose, Rational ClearCase

* Design and implementation of a remote software updating tool to allow software and datasets at signal boxes to be updated automatically. Features included automatic backup history and rollback.#

**Thales Underwater Systems Ltd, Templecombe, Somerset Oct 2001 - Sep 2003**

**Software Engineer**

Sea Guardian sonar system

A multi-threaded, real-time, sonar-based swimmer detection system for the protection of harbours and ships.

**Sonar 2093 Turkish variant and Sonar 2093 Japanese variant**

A distributed, real-time, embedded processor, mine-hunting sonar running on the LynxOS Real-Time Operating System (RTOS).

### Environment: C++Builder, Windows 2000 Pro, Visual SourceSafe, LynxOS RTOS,

### RDD/DOORS, Rational Rose, Requisite Pro

* Design and implementation of interfaces to a GPS and a GPS Compass.
* Implementation of motion compensation based on GBS data.
* Implementation of sonar signal processing and image processing thread using the Intel Processing Performance Libraries.
* General improvements to the existing GUI and performance tuning of the threading model.
* Creation of communications links with the Command & Control system, using TCP/IP sockets.
* Technical trouble-shooter, and mentor in C++ and UML to junior and inexperienced team members.
* Requirements gathering and analysis for the Sonar 2093 MkII system.
* Specification of system data messages for a Sonar 2093 training simulator.
* Generation of test data using Excel VBA.

**Barclays Bank plc, Barclays House, Poole, Dorset Oct 2000 - Sep 2001**

**Software Engineer (freelance)**

**Barclays Business Master II**

An Electronic Banking used by corporate clients, enabling them to manage their accounts and to make funds transfers via a direct-dial link.

Environment: **Borland Delphi, Btrieve, Async Pro, Excel VBA, Windows NT**

**PVCS, Microsoft Word, Rational Rose, ClearQuest**

* Analysis of requirements in conjunction with business analysts.
* Design and implementation of enhancements to the UK Payments and International Payments sub-systems using BACS and SWIFT protocols.
* Development and testing of communications using Async Pro components.
* Update of documentation to reflect the changes made to the software. Writing and execution of test scripts. Production of test data using Excel VBA.

**DERA, Weymouth and Martech Systems (Weymouth) Ltd. Jan 2000 - Sep 2000**

**Software Engineer (freelance)**

**AIM (Analytical Investigation of Minewarfare)**

An analytical model used to calculate the potential risk to shipping in minefields.

**OBSAM (Object Based System for the Assessment of Minewarfare)**

A multi-threaded, Monte-Carlo simulation of minehunting vessels.

Environment: **Borland Delphi, Modsim, Visual C++/ATL, Windows NT, Select Enterprise UML**

**Microsoft Visual SourceSafe, Microsoft Word.**

* Design and implementation of the AIM analytical modelling tool using Delphi.
* Development of a Drag and Drop GUI for the formulation of simulation models.
* Design and implementation of parts of the OBSAM core model engine using Modsim and Visual C++.
* Design of parts of the model using OMT/UML.
* Documentation of the software design.

**Thorn Marine Systems Division, Portland, Dorset Jan 1999 - Dec 1999**

**Software Engineer (freelance)**

**Sonar Range for the Indian Navy**

A real-time, distributed system for the monitoring and analysis of noise sources in naval vessels, using acoustic and magnetic underwater sensors.

**MarinaGuard**

A security system for marinas which involves electronic radio tagging of yachts.

* Design and implementation of the sonar range database server using Visual C++ and Access.
* Design of the System configuration GUI using LabWindows/CVI.
* Generation of reports using ActiveX to control Microsoft Word and Excel.
* Inter-process communication between nodes implemented using COM and IDL.
* Design consultancy and reviews of the MarinaGuard system.

**Club First Impressions, Chester Sept 1998 - Jan 1999**

**Software Engineer (freelance)**

Environment: **Delphi, InstallShield Express**

* Design and implementation of a member database for a Personal Introductions agency.
* All development was carried out in Delphi and InstallShield Express.

**Dr.PC Computer Services, Aberdeen May 1998 - Sept 1998**

**Software Engineer (freelance)**

* Set up a business to repair and upgrade PCs at the customer's premises.

**Connect Mobile Phones Ltd., Dorchester, Dorset May 1997 - July 1997**

**Software Engineer (freelance)**

* Design and implementation of a client/server sales data transfer system.

**DERA, and Martech Systems (Weymouth) Ltd. Feb 1997 - May 1998**

**Software Engineer (freelance)**

Environment: **Modsim, Visual C++, Windows NT, Select Enterprise UML**

**Visual SourceSafe, Microsoft Word.**

* Design of the OBSAM Minehunting Sonar simulation model using OMT/UML.
* Documentation of the software design.
* Creation of test plans, test scripts and harnesses.
* Conversion of existing model code from C++.
* Implementation of the model using Modsim III and Visual C++.
* Design and implementation of the GUI and GUI Manager. This allows any number of views of the model to be displayed and updated in real time, simultaneously.
* Management and administration of the PC systems and network.
* Source code managed using Visual SourceSafe.

**Thomson Marconi Sonar Ltd., Templecombe, Somerset Sept 1996 - Feb 1997**

Software Engineer (freelance)

Environment: Borland Delphi 3.0, Microsoft Pascal, Windows 3.1

* Documentation of software for the Royal Australian Navy (RAN) variant of the Sonar 2093 towed body minehunting sonar system.
* Creation of Test Plans and Test Scripts for the AUX code.
* Design and implementation of software modifications for the RAN variant of the system.
* Execution and logging of tests for changes made by other team members.
* Creation of simulators to test messages sent between various sub-systems via serial links.

**Siemens Transportation Systems Ltd., Poole, Dorset Jan 1994 - June 1996**

Software Engineer (freelance)

Environment: Paradox for Windows, Borland C/C++, Windows 3.11, PVCS, iRMX RTOS.

* Design and implementation of a Train Validation System for the NSW CityRail Train Radio System (TRS).
* Implementation of Network Maintenance Terminal and Radio System Operations Management Terminal.
* Development, testing and debugging controller terminal firmware using Hitex emulators and iRMX.
* Three weeks spent at Siemens Information Systems Ltd., Bangalore, training a larger development team, and handing over development work.

**Haverly Systems Europe Ltd., St Albans, Hertfordshire Jan 1991 - Jan 1994**

Software Engineer

Environment: Microsoft C/C++ 7.0, Borland C++ 4.0 and Microsoft FORTRAN 77

**PC, Windows 3.1, Artisoft LANtastic network**

* Development of deckling and resource scheduling software for the paper making industry.
* Testing and debugging of sheet material cutting software used for carpet and steel-plate manufacturing.

**CAP Scientific Ltd. (now Bae Systems), Dorchester, Dorset Sep 1984 - Dec 1990**

Software Engineer

Environment: Borland Turbo C 2.0, PC, MS-DOS, Windows 2.0, VAX Fortran, VAX Pascal, VAX/VMS

* Development of a number of Command and Control systems for Royal Navy surface ships and submarines, specialising in the sonar environment.