

# Christopher John Bray

## Personal Details

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Driving License Full British (since Jan-1999), Clean  
More contact information available upon request

## Key Skills

### Development

Extensive use of:

- Microsoft Visual C++ 4.2 to 2008 inclusive
- Microsoft Visual Studio .NET 2003/2005/2008 (C# in server, desktop and embedded situations)
- Microsoft Compact Framework for development of .NET applications in C# on PDA's
- XML, XHTML, HTML, WebServices and Javascript
- MySQL, Microsoft SQL Server 2000, 2005 and 2008, Oracle 10g XE and SQLite (on embedded system)
- PostgreSQL, PostGIS and OGC spatial technologies
- PHP and Microsoft ASP.NET
- UML modelling for the design and development of both software and XML Schema including GML Application Schema

### Operating Systems

Extensive experience of:

- Mac OSX 10.5 (Leopard) and 10.6 (Snow Leopard)
- Ubuntu Linux 7.10 to 9.04 for both server and desktop use.
- RedHat Enterprise Linux / CentOS Linux 3, 4, 5.x for server use.
- Microsoft Windows 95/98, 2000 Professional and Server, XP Professional, Vista and 7.
- Windows Server 2003 and 2008 / 2008 R2
- Microsoft Small Business Server 2008
- VMWare Server, Player and ESXi 4
- Zimbra Collaboration Suite

### Computer Aided Design

Extensive experience of AutoCAD and Autodesk Map (Release 12 to 2010 inclusive) use in both 2D and 3D and development in C++ (ObjectARX), AutoLISP, .NET (C#) and VBA

## Publications

Bray, C., Chandler, R. J, Walthall, S., Hoit, M. and Lefchik, T. (2008) *"Extending the Geotechnical Dictionary. Best practice for customizing the international framework for Geotechnical Data"*, The Proceedings of GeoCongress 2008, March 9-12, New Orleans, LA. - [Buy From Amazon](#)

# Career History

## **April 2008 - Present - Proprietor - FreshlyHosted.com**

In addition to my regular employment with Keynetix I took to applying my skills in a private setting. I have developed both enterprise level web applications and standalone applications for a number of customers using a wide range of technologies such as (X)HTML, CSS, MySQL and Object Oriented PHP in addition to content management systems such as Drupal and Joomla. As part of the operations of FreshlyHosted.com I maintained and managed the servers required to support these sites. My work for FreshlyHosted.com has included extensive experience of deployments and migrations to utilise cloud computing technologies such as Amazon EC2, Amazon Simple Storage Service (S3) and SimpleDB, including management and elastic scalability using Rightscale, Slicehost and Rackspace Cloud Servers as well as the NewServers.com hardware cloud for dynamic near real time provisioning of dedicated servers.

I also developed a cloud based iPhone application, Ultimate Notifier (<http://www.ultimatenotifier.com>) is an online notifier that uses Apple's push notifications system (APNS) to send messages to your iPhone or iPod Touch when you receive email, when your Google Reader account receives new items, when your Twitter username is mentioned and a variety of others. I developed the iPhone App, management web application and server side supporting services for Ultimate Notifier, including management and maintenance of the cloud based servers and services required to operate the system.

## **July 2009 - Present - IT Manager and Lead Software Engineer - Keynetix Ltd**

Promotion to IT Manager gave me responsibility for Keynetix' overall IT policy and infrastructure, with a staff of administrators working for me and reporting directly to the board I held responsibility for a team tasked with both the initial definition of new systems and policies and also ongoing operation of internal IT systems both the VMWare virtualized servers themselves and the services they provided. These services included MySQL and PostgreSQL databases, SAMBA for corporate file sharing, Bacula for backups, Zimbra for collaboration and email, internet access including remote access via OpenVPN, the companies internal SugarCRM system, the internal Alfresco Share based Knowledge Base and a selection of QA systems, including both the off the shelf SpiraTeam and internally developed systems.

In recognition of the quality of my development skills I will also continue my work as Lead Software Engineer where I was required to implement a new software rights management system.

## **May 2005 - July 2009 - Lead Software Engineer - Keynetix Ltd**

In May 2005 Key Systems Geotechnical merged with it's sister company KeyGIS and their child company Keynetix Ltd to become Keynetix Ltd, my role as chief software engineer continued as did development on the existing projects as all products were carried on across the merger. I continued working on embedded systems, AutoCAD based visualization systems and a laboratory information management system. I also develop and maintain the corporate anti-piracy system, a non-central software and hardware based user licensing system that is in active use in hundreds of locations all over the world, and is currently still secure.

Since that time my work has included the design and implementation of C# applications and web services, accessible from everything from PocketPC's to full Windows desktop computers. I spent time researching Binary and XML Serialization of .NET objects for their transmission via web service, this research facilitated the design, implementation, testing (which led to the implementation of an NUnit based unit testing procedure throughout the company) and maintenance of a company-wide object modelling and persistence framework. This framework allows objects to be modelled in C# and persisted to and from a number of databases or even an XML file, and transmitted via a web service.

I have recently been heavily involved with the [DIGGSMIL](http://www.diggsgml.com) project to internationally standardise transfer of Geotechnical and Geoenvironmental data in an GML Application Schema (XML based file format) and in addition to publishing research I maintain a well respected blog on this topic located at [www.diggsgml.com](http://www.diggsgml.com), my input continues to the current day.

## **Sep 1999 - May 2005 - Software Engineer - Key Systems Geotechnical**

As I studied at University I was putting the theory into practice in the workplace and rapidly gaining confidence as a developer. I was involved in large scale systems for government bodies in the UK, principally the Highways Agency, where we developed a national GIS system for managing geotechnical data called the Highways Agency Geotechnical Data Management System. My initial responsibility in this project was implementing a C++ COM component that inspected the database of UK roads conducting shortest path searches down routes, although my skills were later turned to developing an embedded system running on Microsoft PocketPC based PDA's. Later my responsibility turned to mapping on the device, allowing the user to download hundreds of megabytes of aerial photography, to a PDA with limited resources. A third party component was used for the presentation itself to avoid re-implementing something that could be purchased, but this C component still needed to be integrated to our Embedded C++ and C# application. Extensive use of P/Invoke and various other .NET techniques saw the system implemented successfully.

# Qualifications

## **RedHat Certified Technician (RHCT)**

The RH133 course and RHCT qualification is an industry qualification from RedHat Inc. designed to produce "A Linux system administrator who has proven competency by passing the RHCT Exam, a realistic performance-based lab exam that tests his/her actual ability to install, configure, and attach a new Red Hat Linux system to an existing production network."

Certificate number: 605010140130502 Verify my qualification at: <http://bit.ly/CBrayRHCT>

## **Microsoft M6445 : Implementing and Administering Windows Small Business Server 2008**

A three day course illustrating the planning, implementing and managing Windows Small Business Server 2008.

## **Strength Deployment Inventory**

Conflict and relationship management and communication skills enhancement training from Personal Strengths, presented by Wingman Ltd.

## **DSDM Atern**

I attended a one day course detailing the principals of DSDM Atern to aid with my understanding of the DSDM Atern software development methodology as we implemented it within Keynetix.

## **Autodesk University 07**

I attended Autodesk's "Autodesk University" conference in Las Vegas, NV late 2007. Attending a wide variety of courses centering around technical advancement in Autodesk's product suite, including .NET development, ObjectARX development, AutoCAD customisation, Advanced AutoCAD use and Advanced 3d Modeling.

## **Programming AutoCAD in .NET**

A two day course presented by Autodesk teaching the development processes involved in developing for AutoCAD using .NET.

## **Systematix SQLServer 2000 System Administration and Database Design**

A four day, Microsoft Certified course about using the Transact-SQL language to query, program, install, configure, administer, and troubleshoot Microsoft SQL Server 2000 in a Windows 2000 Server environment.

## **1999 - 2004 BSc (Hons) Computer Science (Software Engineering) Second Class (Upper Division) 2:1**

I studied Computer Science at Wolverhampton University whilst on day release from Key Systems Geotechnical, modules studied included Requirements Analysis, Specification (both formal and non-formal), Design, Estimation, Development and Implementation and Testing. We did extensive development work mainly using the C++ language, however other development work was conducted using Visual Basic, PHP, Python and Oracle PL/SQL. For my dissertation I wrote an Internet based mapping system, using dynamically generated and generalised Scalable Vector Graphics produced from both PHP and Python scripts to draw interactive maps on-screen in an SVG capable browser such as Mozilla Firefox.

## **Leisure Interests**

I am a keen participant and observer of motor sport with my main pastime being the driving of my Volkswagen Golf GTi with the Volkswagen Drag Racing Club', I am also currently Chairman of the club itself.

My interest in computing and computer science continues out of work as I am an experienced Linux and UNIX user on my own desktops, laptops and servers. I also manage and administer my home network and the associated remote access systems.

I am a keen follower of music, particularly live music, attending concerts and I have been an amateur performer in the past having successfully produced my own CD.

## **Referees**

References and exam certificates / further educational history are available upon request.