

Tim Williams BSc MSc MBCS Curriculum Vitae



Specialist in Internet Technologies, e-Learning (Moodle), Linux, PHP , Java and Video Streaming systems. Currently working as the Chief Technical Officer of [EuroMotor-AutoTrain LLP](#), a [University of Birmingham](#) spin-off company. Originally trained as a microbiologist, but with many years experience of both using and programming computers.

Personal Details

Name :- Timothy Michael Williams.

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Education

MSc Computer Science (Information Technology)

Conversion course at the University of Birmingham for graduates of other disciplines.
Completed in 1998.

BSc Biological Science (Microbiology)

Grade of 2ii awarded summer 1997 by the University of Birmingham.

Sixth form :- Wells Blue School Sixth Form, 1992 - 1994

3 A levels (Biology, Chemistry, Physics) and 1 AS level (General Studies).

Secondary Schooling - Wells Blue School, 1987 - 1992

10 GCSE's (including two dual awards, awarded summer 1992)

Other Training

Attended the Birmingham City Council '[Stimulating Demand and High Growth](#)' programme from March 2010 to March 2011.

Professional Associations

Full member of the [British Computer Society](#) (The Chartered Institute for IT).

Current Employment

Chief Technical Officer (CTO) and partner in [EuroMotor-AutoTrain LLP](#) (also known as AutoTrain E-Learning). This company was created as a commercial spin-out of the AutoTrain and EuroMotor projects, based at University of Birmingham, School of Computer Science, delivering e-Learning to the Automotive Supply Chain. October 1998 onwards. My employment was effectively transferred from the University to the spin-off company in April 2006 when the company started trading.

- Company website <http://www.autotrain.org>
- Operation and maintenance of Apache web servers, streaming video servers , [MySQL Database](#) and Open Source [Moodle](#) Virtual Learning Environment (VLE) using [Linux Centos](#) server platform.
- Website development using HTML, Flash, Javascript, Java (including Servlets/JSP), [PHP](#), [Apache SSI](#) and SQL (using MySQL database).
- [Moodle](#) VLE customisation and enhancements.
- Recording, capturing, editing, post production and preparation of video material for web streaming.
- Development of sophisticated video streaming solution for on-line lectures (with capability for synchronised slides and multi-lingual subtitles), using Real Player, Quicktime, Windows Media and Flash technologies. (See <http://autoview.autotrain.org>).
- Java application development, including streaming video services using the [Red5 Flash server](#).
- Development of on-line course material.
- Attending and presenting to UK and International meetings of project partners and customers.
- Presentation of the project at exhibitions/seminars/conferences.
- Java teaching for the [MSc Computer Science Conversion Course](#) and Internet Software Workshop (through our continuing link to the University of Birmingham School of Computer Science).
- Deal with any hardware issues which may arise (fitting new Hard Disks etc).

Previous Employment

- Occasional consultancy work for Wells Computer Consultants, 1992 onwards
- Temporary Laboratory Assistant, TDL Leatherhead Wells Division, August-September 1996

Computing experience

- **Skilled in Software Design/Analysis for non-trivial applications.**
 - Design for Java applications
 - Web application design
 - Object Oriented Programming and Design
- **Computer Languages and associated technologies**
 - Skilled Java Developer, (from 1998 onwards)

- Extensive experience of Java Servlets and related technologies
 - Use of additional Java api's eg [Java Mail](#), [Java Advanced Imaging](#), Swing, [Java Comm](#), [JDOM](#), [JSP](#) (Apache Jserv and [Tomcat](#)), [JDBC](#), Applets
 - Hand coded HTML/DHTML/XHTML/CSS web page development (working to [W3C](#) standards)
 - Extensive Javascript experience, including significant work using Javascript with Adobe Flash, Real Player, Quicktime, Silverlight and Windows Media Player web browser plugins.
 - Extensive use of [PHP](#) 4 and 5 (2003 onwards)
 - XML including [XSLT](#) and [SOAP protocols](#)
 - UNIX shell scripting/command prompt, including all common command prompt tools.
 - [Apache SSI](#) (Server Side Includes)
 - SQL (using MySQL database)
 - Flash development using Adobe authoring tools and ActionScript
 - Version control using [SVN](#)
 - Some knowledge of Perl
 - BBC Basic v2 to v6 (1985 onwards)
- **Network Technology Skills**
 - TCP/IP Networking and DNS.
 - Installation and configuration of 802.11 Wireless networking with WEP, WPA and WPA2
 - Setup and configuration of server systems for small intranets, using Linux.
 - Installation and configuration of server software/services/clients (where applicable, mostly on UNIX systems) :-
 - [Apache Web Server](#) with [mod_ssl](#), [Tomcat](#) or [JServ](#) and [PHP](#)
 - [Samba](#) file server
 - [Squid](#) proxy server
 - [Postfix](#) and [Sendmail](#) mail servers.
 - [Spamassasin](#)
 - Dhcp/dhcpd
 - [Bind 8/9](#) DNS Servers
 - NIS
 - NFS
 - Secure Shell ([OpenSSH](#))
 - [MySQL](#) Database
 - Linux Firewall configuration and maintenance, using iptables and ipchains
 - Various ftp servers
 - [OpenVPN](#) virtual private network.
 - [Dovecot](#) IMAP/POP Server
 - [Red5](#) Flash Server
- **Distance Learning Technologies/E-Learning**
 - [Moodle](#) VLE versions 1.x and 2.x (Virtual Learning Environment, 2003 onwards).
 - Management and installation of the platform
 - Customisation of the platform, including source code modification and additional modules (including [AutoView](#) and [MoodleMobile](#))
 - Conversion of WebCT course material into Moodle XML backup format (using IMS standards based process).
 - Log analysis work
 - [WebCT](#) (1999-2003)

- Management and installation of the platform
 - Use of programmers API to integrate with external applications
 - Some knowledge of internal file structures
 - Familiar with [IMS/Scorm](#) standards for learning objects
 - Development of course material for above platforms
- **Audio/Video Skills**
 - Non-linear video editing using [Adobe Premiere](#) and Video Action PVR.
 - Preparation of videos for web streaming
 - Video Streaming (including installation, configuration and maintenance of the server software)
 - Real Networks [Helix Universal Server](#) up to version 14
 - Apple Darwin Server up to version 5.5 (for Quicktime and other standards compliant clients)
 - [Red 5](#) Flash Communication Server
 - Video Broadcast using Flash technology and Red 5.
 - Camera work
 - Sound engineering skills.
- **Computer Operating Systems and platforms.**
 - Extensive experience of [Redhat](#) Linux, [CentOS](#) Linux and [Mandrake/Mandriva](#) Linux on x86 Platform. (1998 onwards) 2.0 - 2.6 series kernels.
 - Sun Solaris
 - Windows 3.1/9x/NT/2k/XP and DOS
 - Acorn RISC Computers using RISC OS 2, 3.x, 4.x (from 1990 onwards)
 - Some contact with Apple Mac and Digital Alphas
 - Variety of Legacy home computers including BBC Micros, Apple II (Mid 80's)
- **Linux related skills and experience**
 - Co-Founder of the and current coordinator of [Birmingham Linux User Group](#)
 - Active in the UK Open Source Community
 - Regular contributor and problem solver on Birmingham LUG mailing list
 - Ability to configure and build customised linux kernels from source
 - Installation of additional kernel modules from source and use of patch tools to add additional code to the main kernel source tree
 - Build and installation from source of many linux (and solaris unix) applications, including complete source builds of the [KDE](#) Desktop, QT libraries, Apache webserver etc
 - Knowledge of linux boot sequence and ability to fix basic start up script problems.
 - Package management using rpm and associated update tools (yum and urpmi)
 - Competent in the use of the command prompt and standard command prompt tools
 - Familiar with and skilled in the editing of the base configuration files for most of the main linux services/packages, eg X, samba, apache, lilo, inittab, fstab, kernel modules, networking, xinetd etc
 - Many contacts in the UK opensource/linux community, familiar with the workings of the community in general
 - Use of linux and unix as normal desktop OS, both at home and work since 1998

- **Misc**

- Knowledge of a variety of common software (eg Paintshop Pro, OpenOffice, MS Office etc)
- Experience of hardware modification/installation on PC's and Acorn RISC computers
- Skilled in Electrics and Electronics, including repair work with a soldering iron and component parts.
- Some experience of Informix, Postgres databases. (1997 onwards)

Other

- Full UK driving license held since September 1994, no endorsements
- Extensive experience of team leading/management and team working skills.
- Experience of chairing meetings/discussions.
- Experience of writing project reports (from my academic work)
- Experience of organising large events, trips etc (mostly entertainment related)
- Member of Guild Council at University of [Birmingham Guild of Students](#) Oct 1994 - May 1998
- Griffin Close Residents Association Committee
 - Joined committee March 1995
 - Vice-President March 1996 - May 1998, representing over 1000 students
 - Over £70 000 annual turnover
 - Teamwork and leadership skills
 - Bi-annual Ball's for 350-400 people
- Part time DJ 1996 onwards at Griffin Close, [Guild of Students](#), [University of Birmingham HUB](#) and Birmingham City Centre venues.