

# Leigh Thomas Dyer

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## Introduction

My interest in computers stems from a fascination with technology and science that has been with me since my early childhood. Through self-learning, structured education and on-the-job experience I have developed a broad range of skills in fields such as game and application development, system administration, and web design and development. My ideal job would see me in a challenging role, harnessing my previous experience while exposing me to exciting new technologies.

## Employment History

**Late** [eClinic Pty. Ltd.](#), North Carlton. Configuration and administration of 24/7 web services, **2000-** with a mixed network of Linux and Windows servers running in a co-located data centre.  
**present** Managed a variety of applications and services, including Apache, Tomcat, PHP, ColdFusion, PostgreSQL, and Microsoft SQL Server. Configuration and administration of office network, with a mix of desktop systems, development servers, and production servers for local and external services, including mail, DNS, and proxies. Lead developer of a small team responsible for web application development. Later development focused on Python, Java, and PostgreSQL, though this work included development and maintenance of many older systems based on PHP, ColdFusion, Perl, and Microsoft SQL Server.

Please refer to the Appendix for details on major projects completed at eClinic.

**1999-** Centre for Astrophysics and Supercomputing, Swinburne University, Hawthorn.

**2000** Organisation of developed content into multimedia CD-ROMs for Swinburne's online courses in astronomy, visualisation programming in C++/OpenGL on Linux and Compaq Alpha workstations and general administration of Linux workstations.

## Freelance journalism roles

In addition to my field experience, I also work as a freelance technology journalist, specialising in Linux. Since late 2003 I have written a monthly Linux column for the "Real World Computing" section of PC Authority magazine, and since 2004 I have contributed over 20 Linux tutorials to Atomic: Maximum Performance Computing magazine. In these articles I have discussed a wide range of subject matter, from configuring 3D desktop effects through to installing specific server tools, complete servers, and even high-performance clusters. I have also covered more academic issues, such as software licencing, DRM, and the potential effects of new technologies.

My success in this field has lead to critical acclaim, with nominations in two categories in the 2006 Sun Microsystems IT Journalism Awards. I received a high commendation in one of these categories.

## Education History

**1999** Commenced Bachelor of Applied Science (Research & Development) / Bachelor of : Engineering (Electronics and Computing) at Swinburne University of Technology.

Completed two years of the degree before leaving to pursue work.

**1998** Completed VCE at Seymour Technical High School, with passes in English, Specialist : Maths, Mathematical Methods, Physics, Chemistry, and Information Processing and Management.

Achieved an ENTER score of 99.00

## Programming experience

Language/Toolset	Experience	Proficiency
C/C++	5 years	good
Java	4 year	very good
Python	3 year	very good
OpenGL	1.5 years	good
GTK/GNOME	6 months	fair
ARM assembler	2 months	good
m68k assembler	2 years	good

Much of my early experience includes projects developed at home - I am an avid hobbyist programmer, and a contributor to the open-source movement. Also, nearly all of my programming experience has been in a UNIX environment (typically Linux) - I am familiar with standard UNIX development tools, as well as version control systems such as CVS and Subversion. I also have experience in developing for hobbyist small or embedded systems, such as the Nintendo Gameboy Advance and the Lego Mindstorms system.

## Operating System/Server Administration Experience

- **Linux/Unix systems:**
  - High level of experience with configuration and installation of several flavours of Linux (primarily Debian, Red Hat and SuSE) on x86 hardware
  - High level of experience with configuration and installation of Mac OS X on both Intel and PowerPC platforms
  - Some experience with installation/configuration of FreeBSD on x86, Tru64 on Alpha and Solaris on Sparc
  - Experienced in the installation and configuration of the following servers on unix platforms:
    - Apache (including PHP, mod\_perl, and mod\_ssl)
    - Samba (including configuration of Samba as a Windows NT Domain Controller)
    - BIND and djbdns DNS servers
    - MySQL and PostgreSQL database servers
    - ProFTPd
    - Postfix and qmail mail servers, with spam and anti-virus plug-ins
    - Squid
    - Tomcat Java Servlet Engine
    - Adobe ColdFusion Server
  - Experienced in building Linux-based firewall systems
- **Windows systems:**
  - Experienced in the installation and configuration of several flavours of Windows, including desktop systems from Windows 95 through to Windows XP, and server

- versions of Windows NT and Windows 2000
- Experienced in the installation and administration of the following servers on Windows NT systems:
  - Microsoft SQL Server 7.0
  - Adobe ColdFusion Server
- **General experience:**
  - Experienced in building local area networks (LANs), both in their physical construction (switches, cabling, network card installation/setup etc.) and in the software configuration of client and server computers, using services such as DHCP and DNS.

## Web development experience

Language/Platform	Experience	Proficiency
<a href="#">PHP</a>	6 years	excellent
<a href="#">Java Servlets</a>	3 years	excellent
<a href="#">WebWare for Python</a>	3 years	excellent

I also have a good knowledge of HTML and CSS, as well as experience with XML parsing and technologies such as XSL, SOAP and XHTML.

## Other Activities/Achievements

Active member of the [Linux Users of Victoria](#), and [Linux Gamers League](#). I am also currently a member of the [Linux Users of Victoria](#)'s organising committee. The [linuxgamers.net](#) site was developed by me in my spare time as a news and information portal site promoting the Linux Gamers League. I have also helped regularly at LAN parties held by the LGL, including setting up networks and building/configuring servers.

My hobbies include listening to and writing/playing music, computer programming and gaming, and building/programming models with Lego Mindstorms system.

## **Appendix: Detail on projects and achievements at eClinic Pty Ltd.**

In my many years at eClinic my skills have evolved to meet the needs of the company. I have managed all key IT infrastructure, from initial design through to purchasing decisions, installation and configuration, and on-going maintenance. I have also served as a sole, or lead, developer on several major projects and many smaller projects.

### **Pathology messaging system for general practitioners and specialists.**

This is eClinic's core product, and it has evolved significantly in the last six years. Originally developed as a web-based system using proprietary tools (Allaire Spectra, ColdFusion, and Microsoft SQL Server) on an NT platform, I spearheaded a move to a client-server model using web services, and a low-cost open-source framework using Apache, Java, Tomcat, Python, and MySQL, all running on Linux. I later migrated the system to PostgreSQL once it became clear that it was a better choice for the task than MySQL.

I developed several key components of the system, including HL7 messaging components (in Python and Java), database design (PostgreSQL), the server-side interface used by our client (Java), online HL7 viewing tools (Python and ColdFusion), and administrative, management, and billing tools (Python, PHP, ColdFusion).

### **Web-based pathology viewer for hospitals**

This system imports HL7 messages from a single pathology lab and makes them available for viewing through a secure website. The first version was developed in Python and delivered on a very short timetable. In later versions I moved the web interface to Java using Spring and Hibernate. The system integrates closely with the ULTRA system used by the lab, and processes patient ward transfer and discharge HL7 messages to present users with a hospital-centric view of patients, segmented by ward. The system runs on a PostgreSQL database

### **Pharmaceutical sample ordering system**

Initially developed by other developers in ColdFusion, and running on a Microsoft SQL Server database, I was brought in to this project to overhaul the order processing, reporting and accounting systems. I used Python to develop new order processing systems, which allowed great flexibility in the handling of incoming orders, and an automated reporting system that could run any number of reports on a user-configurable schedule, producing output in HTML, Excel, and PDF formats. Both systems used a combination of web-based configuration systems, and scheduled tasks that performed the work as configured.

### **System administration**

I have been responsible for all system administration tasks, including the management of the office network, with a mix of Linux and Windows desktops and servers, and management of the co-located production environment. In particular, I have been proactive in terms of security, reliability, and adoption of new technologies. I make extensive use of cryptographic toolkits and secure transmission systems such as OpenSSL, OpenSSH, and OpenVPN, and I have implemented extensive automated monitoring of our systems at the network, server, and application levels. Most recently I have begun to use virtualisation to maximise utilisation of our limited hardware resources, and have produced detailed plans to use virtualisation specifically to implement redundancy and application isolation, to further improve security and reliability.