



Curriculum Vitae

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Summary

To obtain challenging technical positions in IT as a developer, IT architect, network engineer, system administrator or similar. My skill sets lie in the fields of Linux (Red Hat), Windows (XP, Vista), Macintosh, Sun Hardware/Storage, Solaris, BSD and the implementation of LAMP and WAMP development platforms. I have high level skills in PHP, CSS, XHTML, Javascript (jQuery), ASP, ASP.NET, C. I have a passion for developing class-act web applications. At a technical programming level I posses expert skills in C/C++, Perl, PHP, Python and PL/SQL. I have a passion for UNIX and was the founder and first chairman of the QLD AUUG (Australian Unix User Group). I have used RDBMS systems for over two decades and am considered an ORACLE and MySQL capable DBA/coder. I have experience with Microsoft MSQL, DB2, Ingress, Informix, PostgreSQL. I have a strong background in networking, holding senior engineering roles with Telstra, OPTUS, iiNet, Paradox Digital, STALLION and AWA Defence Industries. I have designed and built Wireless, fiber, copper and satellite networks around Australia and the world. I have been a contract IT professional for most of my adult life, noted for making things work, quickly, in complex and diverse environments. This has given me a wide range of experience in diferrent industries, education, government, transport, military, health and of course, telcos.

Experience

Current

I wanted some time to explore advanced AJAX techniques and different ways of presenting Web 2.0 interfaces whilst keeping the code tidy and small. www.addinall.net/ehealth

(this is a prototype, not meant to be finished or commercial. Some of my more recent work can be found under Health Informatics. The use of Business Intelligence techniques in the exploration of Health data is another area of interest and not approached often enough,). A lot of people are talking about eHealth. I decided to take some time to write one to prototype stage.

I have also spent some time developing a cloud based accounting system ACCLOUD and a suite of system administration tools, Quicktools 2 and ISPCONFIG <http://www.ISPCONFIG.org>

This development has been going on for some years. Every few years I take a small sabbatical to re-work systems to reflect emerging technology trends. This allows me to devote 100% of my time to study, R&D and the definition of new system and application services, and allows me to keep a very high level of code re-use (> 80%) in my Web application systems.

Of course, on-going improvement on my CMS, Chameleon v3.

February 2010 - August 2010

Web Programmer/Systems Administrator (AO6)

CITEC. Department of Public Works

- ↳ UNIX (solaris) systems administration
- ↳ Linux (mostly Red Hat) systems administration
- ↳ Perl programming
- ↳ PHP programming
- ↳ MySQL database design and support

April 2009 - February 2010

Self Employed

- ↳ I made a "sea-change" move to the Sunshine Coast last year. I built a home and office in Coolum Beach. I was considering contract and/or

part time assignments in the area of Web page design and publishing and the design and implementation of Web applications. Doing this from Coolum was impractical so I moved back into the city.

- ✚ Network support on small SOHO DSL networks.
- ✚ I have been re-writing my content management system "Chameleon" up to version 3.0.
<http://www.koolivoo.com.au/index.php/services/content-management/>
Some sites I built that use the content management systems can be found at:
www.outbackcounter.com
www.africa-adventure.com
This product has been aimed specifically at the tourism market.
- ✚ I have been investigating newer **Javascript** technologies including **JQuery** and more recently **ExtJS**. These technologies allow the manipulation of the **DOM** and allow greater flexibility in the design of 'Single page' Web apps and various **AJAX** architectures. An experimental page is found here:
www.addinall.net/biotools
This experiment is aimed at integrating various **Perl** routines (**BioPerl**) and Perl APIs (**GenBank** and the newer **Ensembl**) into an AJAX type of environment. This is personal work in progress.

January 2009 - End May 2009 - brafit direct Senior PHP Developer/Linux-Windows/Web Administrator

- ✚ My major role in this company has been the design and build of a custom content management system to provide content for dynamic web pages that are designed to sell bras and other underwear to on-line shoppers.
- ✚ Building, configuring and supporting **Linux** and **Windows** servers servers, here in Brisbane. **MySQL** database administration, network security, **LAMP/WAMP** architecture.

January 2008 - November 2008 - KOOLIVOO Senior PHP Developer/Linux-Windows/Web Administrator

- ✚ My major role in this company has been the design and build of a custom content management system to provide content for dynamic web pages that are designed for clients in the travel industry. The project is released now in two customers, one in Adelaide and one in California. The program uses an **OOD/OOP** paradigm.
<http://www.koolivoo.com.au/index.php/services/content-management/>
- ✚ Building, configuring and supporting **Linux** servers, here in Cairns,

Adelaide and overseas. **MySQL** database administration, network security, **LAMP/WAMP** architecture.

- ↳ Mentoring junior staff in the design and application of modern commercial Web sites. **CSS** philosophies, code re-use, **Web 2.0** concepts, **AJAX**, **SOAP** etc.
- ↳ Building a /n **Wireless** network for the company.
- ↳ Installing a backup regime for the company's Linux and Windows servers.
- ↳ Customization of **Apache** 2.0.63 and 2.2 and **PHP** 5.x to incorporate **ImageMagick** native **PHP** modules, **MagickWand**.

November 2007 - December 2007 - OPTUS Senior Red Hat Linux Network Engineer ISP division

- ↳ Short term contract writing some Perl scripts to handle changes in the **AAA** architecture of the **OPTUS** dial-up and broadband ISP products.
- ↳ **PostgreSQL** database.

May 2007 - October 2007 - Neller Pty Ltd Senior Architect - Technical Consultant

- ↳ Helping Neller with an architectural plan to move the existing **AS400** suite of software into a **LAMP/WAMP** environment.
- ↳ Designing, with other members of the company, benchmarks and prototypes.
- ↳ Installing and configuring the new **Zend PHP** engine on the **iSeries** development machines.
- ↳ **Apache II** configuration.
- ↳ **PHP** programming as a part of an R&D project running on an IBM **iSeries (AS400)** minicomputer.
- ↳ **C/C++** programming in an IBM **iSeries (AS400)** minicomputer.
- ↳ **SQL** programming related to the same. **DB2**.
- ↳ Documentation of existing and new procedures.
- ↳ Publishing "Data, Data Warehousing and Business Intelligence" for internal management and technical staff.
- ↳ Designing futureproofing concepts. **Web 2.0**, **LAMP**, **AJAX** etc.

February 2007 - May 2007 - SA Lotteries Engineer - Data Warehouse/Betting systems - Windows

- ↳ Perl programming of the **Data Warehouse Load, Update and Rollup**

calculation functions.

- ↳ Implementing new **Keno** functionality in the **MISWAG** calculation systems.
- ↳ Creating **on-line documentation** of the functions and related star schemas, data sets and tables used by the **Data Warehouse**.
- ↳ **SQL** programming related to the same.
- ↳ Microsoft environment, **MS-SQL**, **MS Windows Server 2003**, **Windows XP**, **.NET**.
- ↳ Documentation of existing and new procedures.
- ↳ Designing documentation standards.

January 2007 - February 2007

Study Break

- ↳ **Perl/PHP/C/C++** programming for Bioinformatics.
- ↳ **MySQL**, **ORACLE**, **MSSql** database for Bioinformatics.

November 2006 - January 2007 BoxSentry

Senior Engineer Perl Development/UNIX - Linux Systems Administrator

- ↳ Writing **Perl** programs to manage a **secure email** systems world wide.
- ↳ **MySQL** database.
- ↳ **Red Hat Linux** systems Administration. Mail, **Apache** and firewalls, including **BASH** Scripting, **C/C++** programming.

June 2006 - October 2006. Energex Pty Ltd.

Senior Engineer SCADA - Technical Consultant

- ↳ Re-Designing and implementing new **Data centres** including new servers, storage (**NAS** and **SAN**), power supplies, failover technology, security (site), environmental control, fire control.
- ↳ Porting **SCADA** systems from **Tru64 UNIX (OSF1)** to **Linux 2.6.x x86 64 SMP (RedHat ES 4.2)**
- ↳ Building and configuring **RedHat ES Dual-core 2XCPU AMD Opteron (HP DL385)**
- ↳ Building and configuring storage - **RAID 0+1**, **RAID5**
- ↳ **C** programming
- ↳ **Perl** Programming
- ↳ **BASH** scripting

- ↳ Designing new **High Availability Linux Clusters**. Develop the **Heartbeat/Failover** code from scratch.
- ↳ Building **High Availability hardware/networks**.
- ↳ Consulting regarding **emerging technology, High Performance, High Availability and Best Practice**.
- ↳ **Technical writing**. System documentation.

February 2006 - May 2006 iiNet LTD

Senior Programmer/Analyst

Designing and developing new routines and equipment to manage the entry **TO** points into a very large national **ISP**. **Data** and **VoIP**. **ADSL/2, ADSL** and **PPP**.

- ↳ **MySQL** Programming.
- ↳ **Perl** Programming.
- ↳ **C/C++** Programming.
- ↳ **Network Design**
- ↳ **Data Centre** re-build
- ↳ **Solaris** Administration.
- ↳ **CISCO/WAN** configuration

July 2005 - February 2006 Australian Bureau of Statistics

Senior Programmer/Technical Lead

Designing and developing new programs that manipulate and display statistical results from various diverse data sets for the Australian Federal Government. Very large data warehouse and cube analysis techniques.

- ↳ **ORACLE PL/SQL** Programming.
- ↳ **ORACLE SQLPlus*** Programming.
- ↳ **ORACLE LOTUS** Interface Programming.
- ↳ **ORACLE DBA**.
- ↳ **Statistical methods**.
- ↳ **Data warehouse** optimization.
- ↳ **Solaris 9 - Clustered**

April 2005 - July 2005. Deakin University, Geelong Waterfront

Web Programmer/Team Leader.

Preparing an Infrastructure analysis and audit study in regards to **W3C** standards required by the University's web standards, notably **P1** and **P2** accessibility. Re-design of a large number of the University's outward

and inward facing web pages. PHP programming on the ongoing content-management system.

<http://www.deakin.edu.au/openday/>

- ↳ W3C Audit using "Bobby".
- ↳ PHP Web Programming.
- ↳ ORACLE O18 Programming.
- ↳ PL/SQL Programming.
- ↳ ORACLE DBA using TOAD.
- ↳ Solaris 9 - Sunfire 20x
- ↳ Windows XP Pro. Dreamweaver.

January 2005 - March 2005. Department of Public Works, QLD Architect Infrastructure - Technical Consultant

An "Urgent" short term contract. Preparing an **Infrastructure analysis** and feasibility study in regards to the **consolidation and re-build of several of the departments' computer and communications data centers**. An emphasis on **risk analysis** and the **security** of the infrastructure. Proposing a number of physical infrastructure recommendations that include the subjects:

- ↳ **Data Center** geographic location.
- ↳ **Re-location** planning.
- ↳ **Security** standards analysis.
- ↳ **Server** consolidation.
- ↳ **Switch/Router** organization.
- ↳ **Physical access security**.
- ↳ **RAS**.
- ↳ **Power** requirements.
- ↳ **Environmental** control.
- ↳ **Fire control**.
- ↳ **Floor** architecture.
- ↳ **SLA** and **KPI** management with vendors.
- ↳ **Microsoft** tools used for this project.

Part time in March - Bonsai Web Productions Web Programmer - Windows environment

A fun job developing new web pages and updating existing sites. I predominately work with the interface between the user interface and the underlying server architectures, portals, content management systems and database. I worked for this company in my "after hours" space, mainly because I liked the company, and I enjoy programming.

- ✚ **PHP** programming. **OOP** and **OOD**.
- ✚ **Perl** programming.
- ✚ "**Smarty**" Template creation.
- ✚ **MySQL RDBMS** design, creation and **MS-SQL** programming.
- ✚ Customer **support**, 1st - 3rd tier.
- ✚ Product **testing**.
- ✚ **Windows 2003**.

September 2004 - January 2005. Queensland University of Technology Infrastructure Architect - Technical Consultant

I ran a project for the Faculty of Information Technology that was a **Server** and **NOS** consolidation project. The Faculty ran 42 servers of differing designs, combining 8 different UNIX and UNIX like operating systems, Windows NT and Windows 2000. My task was to produce a design after a **discovery phase**, which would accommodate the functionality of these machines on a more up to date infrastructure with a smaller footprint. One of the objectives was the supportability of the design over the next 5 years.

- ✚ **Systems** investigation. A discovery process encapsulating all the legacy servers, **NOSs**, **DBMSs**' and applications.
- ✚ **Network Architecture**. Investigate and document current network architecture.
- ✚ **Security Architecture**. Formulate the required build **SOE** for **Windows 2003** and **Linux**.
- ✚ **Data centre rebuild**. **Re-locate** consolidated networks in a purpose built location.
- ✚ **SAN/NAS**. Investigate and document storage requirements and potential solutions from **IBM**, **Sun**, **Hitachi** and **EMS**.
- ✚ **Planning server room relocation**. New rack installation.
- ✚ Building **test bed** using **Sun Solaris 10**. Sparc **VT240/440** environment.
- ✚ Building **test bed** using **Linux Red Hat Enterprise v3** and **Dell** hardware.
- ✚ Building **test bed** using **Microsoft Windows 2003** and **Dell** hardware.
- ✚ Installing **portal** technologies. Sun, Open source and Microsoft.
- ✚ Liaising with vendors and potential vendors, **Microsoft**, **IBM**, **Sun**, **Hitachi**, **EMS**, **AlphaWest**, **Dell**, **HP**, **Red Hat**.
- ✚ Negotiating **SLAs** and **KPIs**.
- ✚ Project **documentation** following **ISO9000** standards.
- ✚ Assisting in the build of CTR Linux/Windows **Beowulf/Grid Super-computer** cluster.

- ↳ Giving **presentations** to staff. Planned and impromptu.

April 2004 – August 2004. Telstra Internetwork Specialists Brisbane, QLD Senior Development Engineer. Network Specialist.

Author of a suite of software providing an easy to use, friendly interface to the 20,000 routing devices owned by Telstra Australia and operational in **managed WANs**. The **QuickTools** software suite will provide some thirty reports specific to routing devices, and a dozen reports that can be applied to routers, switches or machines. The tools, written in **PHP** and **PERL** have been developed using an **OOD/OOP** paradigm.

The application suite will provide for a **secure** single sign-on for Telstra **NOC/Support** engineers from Windows workstations, UNIX servers and the **Cisco/Nortel** and **Motorola** devices.

The common **ODIN** security level is to be implemented, but provision will be made to transition **QuickTools** from this model into a single point **LDAP** database. Provision will also be made to implement **IPSec** over **Ipv4** and of course over **Ipv6**.

The languages and techniques used are :-

- ↳ **PHP**. Used to code the server-side **Apache**-httpd routines.
- ↳ **JavaScript**. Used to code the client side **GUI** elements.
- ↳ **Perl**. Used to code the lower-level **SNMP CISCO IOS** routines.
- ↳ **C/C++** used to code the multi-threaded UNIX systems routines.
- ↳ **SSH/SSL**. Used to provide the security requirements over the network.
- ↳ **LDAP**. Used to store the location and security level of potential users.
- ↳ **Oracle**. DBMS used to store Customer, Network and Device information.
- ↳ **Solaris, Linux, Windows XP**.
- ↳ **SNMP** trap and event reporting (SNMP2/3).
- ↳ **SNMP** OID **MIB/2** reporting.
- ↳ **HP-Openview** tool integration.

The software controls and reports on the **WAN(s)**:-

- ↳ **TCP/IP - UDP/IP** Tables
- ↳ **ISDN BRI** States
- ↳ **PPP** connections
- ↳ **Ethernet(s)** status

- ↳ **Frame Relay States**
- ↳ **ATM States**
- ↳ **Virtual LAN Statistics (VLAN)**
- ↳ **RADIUS WAN access and accounting integration.**
- ↳ **TACACS+ WAN access and integration.**
- ↳ **IOS configurations EGRP (BGP), RIP and OSPF.**
- ↳ **VSAT connectivity**
- ↳ **Security Device configuration, PIX, Firewall-1.**

Oct 2003 - March 2004. BCC Legal Department - Brisbane, QLD
Library Technician

Archiving government publications. Computer records management. Loose-leaf and legislation updates. Designing and implementing a catalogue system using **XML, MySQL, Apache and PHP. Novell, ZenWare and Groupware 6. Microsoft Windows 2000.**

July 2003 - Oct 2003 Pirates Backpackers
Fremantle, WA

Assistant Manager

A "fill in" job. I took a holiday, went mountain climbing, and fell off. This little 'trip' got me out of IT for a few months! My duties included the usual administrative tasks associated with hotel/hostel management. Looking after a small **Windows/ADSL Internet Café network. Microsoft Windows 98.**

Nov 2001 - Mar 2003 Self Employed Mandurah, WA
Systems Developer - Architect

Designing project **KOOKABURRA**. A mobile, automated alerting system that will report air or water born contaminants. In general, it is a testing device built using **LASER Induced Breakdown Spectroscopy** equipment, housed in a modified shipping container and controlled and interrogated by being a node on a private **WAN. Red Hat Linux** used as the controlling OS.

- ↳ **Security investigation. Technologies in 2002. Storage Area Network security.**
- ↳ **Investigation of new government data transmission and storage technologies. DIF. Z39.5 (geospatial) and HL7 (health), XML. Advising departments and developers of strategic IT directions.**
- ↳ **Started investigation of new Bioinformatics techniques and tools. BLAST, FASTA formats etc.**
- ↳ **Perl programming. Data manipulation, formatting.**
- ↳ **C/C++ Systems programming.**
- ↳ **Tk/TCL programming. Solaris and Linux**
- ↳ **Database installation and maintenance. Postgres SQL and MySQL.**

- ↳ Firewall implementation including NAT.
- ↳ **Solaris, Linux, HP-UX, AIX, SCO UNIX, NT, Win2000 support.**
- ↳ **Apache** webserver configuration.
- ↳ **Samba** - Windows configuration.
- ↳ **CISCO IOS** Router configuration.
- ↳ **Stallion** Terminal server, **VPN** configuration.
- ↳ **Java** programming
- ↳ **JavaScript** programming.

**Jul 2001 - Nov 2001 Department of Minerals and Petroleum Perth, WA
Manager, Network Operations and Infrastructure**

A contract position at **PS8** level. The department has an **IBM** mainframe in East Perth (managed by **CSC**), one **IBM** mainframe in the City for fail over use, twelve large **Sun** servers in Mineral house (**Solaris7**), twenty large **Compaq NT** servers in Mineral house and a thousand PCs. **Novell Netware** and **Lotus notes** were supported in several departments. The department has a dozen regional sites, Kalgoorlie etc. The **WAN** comprises **Token Ring** and **Ethernet LANs TCP/IP** and **SNA LU6.2 APPC, Fiber** around town, **Frame** out to the regional offices. **Wireless** in several locations. Roughly a terabyte of disk to control. I had approximately thirty people on my staff. This role saw me on all of the strategic planning groups for the department and much of my time was spent disseminating information in regards to new and emerging technology, and the strategic use of same to enable cost efficient and timely business solutions to the department's business requirements. Notably, I engineered the replacement of the **Novell NOS** during the merge of my department and the Department of Industry and Resource. My department was the larger by far (5000 staff vs. 320 staff) so the Novell machines where turned over to **Windows 2000**. As with all technology changes within the PS, this one had to be sold to all stakeholders. My specific duties included:

- ↳ **Capacity planning** for **Oracle DBMS** (Solaris and NT).
- ↳ Firewall planning and installation. Checkpoint **Firewall 1** and **CISCO Pix, IPSec**.
- ↳ Installations of DBMS, **Oracle, DB2** (Solaris and NT).
- ↳ **RAS** configuration (Solaris, NT, Novell and MVS)
- ↳ Network configuration. Including **CISCO IOS QoS** and **BGP**.
- ↳ Management of a 5000 user **voice** network.
- ↳ Management of a 5000 user **enterprise messaging system**. Windows NT, 2000 and 98.
- ↳ **Office and server room re-location** of a large **government** department's **data centres**.
- ↳ Traffic shaping, configuration management, Compressed Real-time

protocol.

- ↳ Providing **UNIX** and Network support to various development projects including scripting, patching, **C/C++** programming.
- ↳ Providing strategic information regarding the use and benefit of **Open source** software and the **Linux** operating system.
- ↳ **Security reviews** as a result of **audit** (internal and external) and technology change.
- ↳ **Backup planning** and management. **Terabyte** of data.
- ↳ Business and Systems analysis of state government, local governments' requirements including interdepartmental projects (DOLA etc), and **cross-cultural projects (Native Title etc.)**.

Aug 1999 - Mar 2001 That's IT Pty Ltd Darwin, NT
Technical Manager - Consultant

Varied positions in this small company. Of most interest was designing the wide area network for the Traditional Credit Union in remote Arnhem Land. Investigating appropriate new technologies and the security for a banking network with an immense satellite coverage was of great interest. Providing the channel banking over the network from an island offshore Arnhem Land through to the Facilities management house in Brisbane was challenging and interesting.

- ↳ Business and Systems analysis of the requirements of a remote banking system, security, **WAN** topology, cross-cultural issues (native land management, English as a second language, educational demographics etc.) and liaising with councils and local governments. The logistics part of the business analysis was challenging and exiting. How to build in areas that have no road or rail transport available proved to make this a very different proposition to building a satellite **POP** in the City.
- ↳ Build and support a **satellite WAN** based on **PAS2/Ku** band and **frame relay** earth lines. Sat earth stations at Wadeye, Burunga, Maningrida, Millingimbi, Ramingining, Galiwinku and Gapuwiyak covering a large portion of remote Arnhem Land. The network supported a bank. **TCU**. Security of the banking **WAN** from customer through to facilities manager.
- ↳ Provide operator training for users of the Banking system.
- ↳ Working at the **Menzies School of Health Research**. Assisting scientists with networked and clustered computer system. Providing **UNIX** and **Perl** support.
- ↳ Building and support of **SCO UNIX 5.05** on IBM Netinfinity. 512MbRAM, 60 GB Disk - **RAID5**. **LAN Cat5** copper and IBM Fiber. **Korn** shell scripting.

- ↳ **Server re-location and data centre design** and build.
- ↳ Support of ALPA **SCO UNIX 5.05** on existing Compaq. OS upgrade due to Y2000.
- ↳ Network configuration. **CISCO** Routers, **Stallion** Terminal servers.
- ↳ Systems Administration of **Red Hat Linux** and **FreeBSD** Intel machines. **Perl** programming, **Korn** shell scripting.
- ↳ **Perl** programming
- ↳ **JavaScript** programming.
- ↳ **C/C++** programming under **UNIX/Linux**.
- ↳ **Apache** webserver installation and management.
- ↳ Windows support and installation. 98, 95 and MS-DOS.

Jun 1999 - Aug 1999 DCIS Darwin, NT

UNIX System Administrator - Technical Consultant. Department of Communications Information Systems

- ↳ **Data centre planning and implementation.** Underground facility.
- ↳ **Solaris SPARC** support for the Department of Mines and Energy.
- ↳ **AIX** support for the NTU (RS6000 BJ40, RS6000 BJ50).
- ↳ **SCO** support for the Department of Births, Deaths and marriages.
- ↳ **DEC OSF-1** support for the NT Police department.
- ↳ NT support for DCIS and Department of Mines and Energy
- ↳ **Business analysis** of the requirements of the various government departments
- ↳ **Systems analysis**
- ↳ Installation and maintenance of **Oracle** DBMS (Solaris).
- ↳ Installation and maintenance of **Ingress** DBMS (Solaris)
- ↳ Installation and maintenance of **Universe** DBMS (SCO).
- ↳ Assist the implementation of **S/390 UNIX** on the mainframe.
- ↳ Ongoing network **security**.
- ↳ Daily **backup** schedule for all systems.
- ↳ **Korn** Shell, **C/C++**, **Perl** programming.
- ↳ **Mail** administration (all of **government**).
- ↳ Printer administration.
- ↳ User administration.

Jan 1999 - Jun 1999 Port of Fremantle Authority Fremantle, WA

UNIX System Administrator

- ↳ **Solaris SPARC** support for the Fremantle Port (E3500, Solaris).
- ↳ NT Support of six development workstations
- ↳ Network planning and security.

- ✚ **Apache** webserver configuration and maintenance.
- ✚ **Korn** shell scripting.
- ✚ **Perl** programming.
- ✚ Installation and maintenance of **Oracle** DBMS (Solaris).
- ✚ Installation and maintenance of **COSMOS** system administration suite.
- ✚ Daily **backup** schedule for all systems.
- ✚ **Mail** administration.
- ✚ **Printer** administration.
- ✚ **User** administration.
- ✚ **Data centre** planning and implementation.
- ✚ Access list administration
- ✚ **C/C++** programming.

Jun 1998 - Jan 1999 Paradox Digital Pty Ltd Perth, WA
Technical Manager - Consultant

- ✚ Provide bandwidth to **ISPs** in Australia.
- ✚ Manage bandwidth from **PAS2/ PAS8** to various **satellite POPs** in Australia.
- ✚ Manage bandwidth from **Optus** and **Telstra broadband**.
- ✚ Installation and support of **Linux Red Hat**.
- ✚ Network **security**. Satellite and land broadband.
- ✚ Travel to Adelaide to build a 5m satellite **POP** at 97 Pirie Street. This including designing and building a new **data centre** to house the **POP**.
- ✚ **CISCO IOS** QoS configuration. Traffic shaping, congestion management, data balancing, load balancing.
- ✚ **Apache** webserver configuration and content management.
- ✚ **CGI** programming in **Perl**.
- ✚ Device driver programming in **C/C++**.

Jan 1997 - Jun 1998 Technology Partners Pty Ltd Adelaide, SA
Consultant/Project Manager

- ✚ **Solaris SPARC** support for the ETSA **CAD/CAM** section.
- ✚ **NT** support for in-house servers
- ✚ **Oracle** DBMS preparation for Y2K upgrade.
- ✚ Y2K Review for ETSA.
- ✚ Report writing. Security review.
- ✚ Y2K test plan creation for **UNIX** systems and embedded systems.
- ✚ **Java** programming.

Jun 1996 - Jan 1997 Mildura Base Hospital Mildura, VIC
UNIX System Administrator

- ↳ **UNIX** support AT&T V.4 - DRS6000 4XCPU server for the hospital
- ↳ **Linux** support, Red Hat , Slackware, in house systems.
- ↳ Database support and configuration. **Ingress** and **Informix**.
- ↳ **Windows 95** support.
- ↳ Writing programs in **C/C++**, **SQL** and **Ingress 4GL** to calculate the WIES accounting schedule for the **hospital**.
- ↳ Writing programs in **Perl** and **SQL** to implement medical data warehousing.
- ↳ Writing programs in **Perl** to implement message distribution to remote health workers.
- ↳ Writing **UNIX** scripts, Csh to provide routine system tasks.
- ↳ Writing programs in **Perl** to schedule (surgical) operating system resources.
- ↳ User account management.
- ↳ Daily backup procedures.

Apr 1994 - Jan 1996 Queensland Rail Brisbane, QLD
Project Manager - Messaging Systems

- ↳ Design and rollout a 5000+ user enterprise **messaging** system.
- ↳ **Business requirements** analysis.
- ↳ **Integration** between Hitachi PCMF (3090), DEC UNIX, Solaris UNIX, OS/2 and Microsoft Windows (NT, 95 and Win 3.11).
- ↳ Database support **CICS IMS** and **DB2**.
- ↳ Design and coding in Perl for the integration of messaging systems into the **CAMEL Intranet**. Introduced a **Linux** development machine to the project team. I am reasonably sure that this was the first **Linux** box to be seen inside a **government** IT department.
- ↳ Installation and support of Solaris webserver. **Netscape** on Sun Netra.
- ↳ **Perl** and **C/C++** programming.
- ↳ Project **documentation**.
- ↳ Preparation of training plans and resources.
- ↳ Chairing development board regarding enterprise electronic mail.
- ↳ Assisted in the enterprise **NOS** review.

Apr 1992 - Apr 1994 AWA Defence Industries Sydney, NSW
Senior Defence Software Engineer

- ↳ Design of the **Australian Army** tactical communication network, **PARAKEET**.

- ✚ Installation and management of **SCO UNIX** development machines.
- ✚ Database evaluation for suitability (**Oracle** and **Ingress**).
- ✚ Configuration of **Stallion X.25** IO cards and software.
- ✚ Writing programs in **C/C++** to build a RDBMS on top of **C-ISAM UNIX** primitives.
- ✚ Writing programs in **C/C++** to interface with **Tk/TCL** MMI GUI.
- ✚ Writing programs in **C/C++** to access low level services - **X.25** communications controlling the **WAN**.
- ✚ Writing programs in **C/C++** to access low level services - **SNMP MIB.2**. Controlling the **WAN**.
- ✚ Electronic warfare. Noise reduction in **ELINT** counter-measures and counter-counter-measures.
- ✚ Project documentation.
- ✚ Technical presentations to the **Australian Army**.
- ✚ Full trusted system **security** design and test.

Jan 1991 - Mar 1992 Stallion Technologies Brisbane, QLD
UNIX Development Manager

- ✚ Design and build of **UNIX software/hardware** communications devices.
- ✚ Form part of a project team with **VicTAB** and **QLDTAB** to design and implement the betting **WANs**.
- ✚ Installation and support of Intel based **SCO UNIX**, **AT&T V.3.4**, **AT&TV.4**, **Interactive UNIX AIX**, **Linux** and others (including very early Linux).
- ✚ Programming in **C/C++** at a device driver level.
- ✚ Porting **UNIX STREAMS** technology to embedded systems.
- ✚ Writing programs in **C** under **MS-DOS/Windows** to write an ANSI terminal emulator (EasyTerm - Still available on any Stallion CD-ROM).
- ✚ Interstate and overseas travel as part of a business requirements team.
- ✚ Designing and establishing a new data centre in California to support Stallion's USA operations.

Feb 1989 - Dec 1991 British Steel (Technical) Rotherham, UK
Senior Programmer/Project Manager

- ✚ IBM mainframe programming **TSO-ISPF**, **FOCUS**, **MANTIS**, **COBOL**
- ✚ IBM mainframe systems programming, **JCL**, **JES/2**, **CICS**.
- ✚ Analysis using **SSADM** and **LBMS**.
- ✚ Writing programs in **C** under **OS/2** at an application level to interact

with mainframe **CICS** transactions.

- ↳ Writing programs in **C/C++** under **OS/2** at a low level to interact with mainframe **CICS** transactions, **APPC LU6.2 - PU2.1** interfacing to **CICS TS-Queue**.
- ↳ Design and coding a **TSO** Terminal emulator under **MS-DOS/Windows 3.1** using **assembler** and **QuickBasic**. **OOD**. (still in use)
- ↳ Evaluation of **Next UNIX** and tools for suitability in British Steel.
- ↳ Project documentation.
- ↳ Providing training plans and career mentoring for 12 junior programmers.
- ↳ Presentations to members of the scientific and technical staff (up to 100 people).

Jan 1988 - Jan 1989 CADAR Systems Sheffield, UK
Senior Software Engineer

- ↳ Writing programs in **C/C++** to collect and evaluate real-time data input for **statistical process control**.
- ↳ **Statistical collection and reporting** systems developed for Rolls-Royce, Ford, DuPont, and Jaguar.
- ↳ Database support and configuration. Built in-house under **C-ISAM**.
- ↳ Design of mathematical algorithms to compute statistical results from real-time data.
- ↳ Support of external **Novell** networks, Ford, Jaguar, and DuPont.
- ↳ Development of source code control procedures.
- ↳ Development of Small Systems Design Methodology.
- ↳ Project documentation.

Feb 1986 - Dec 1988 Advanced Computer Systems Adelaide, SA
Senior Software Engineer

- ↳ Writing programs in **Pascal** under **UCSD P-System** to implement an insurance financial accounting package.
- ↳ Writing programs in **68000** assembler to support the above **Pascal**.
- ↳ Installation and support of **UCSD P-System** on **68000 mini-computers** and Intel based microcomputers.
- ↳ Writing programs in **80x86** assembler to support the Intel installations.
- ↳ Travel interstate and overseas to support products.
- ↳ Installation and support of Motorola AT&T **UNIX V.3.2** on 68000 mini-computers (Stride 440 and others) for development evaluation.
- ↳ Project documentation.

Feb 1984 - Feb 1986 Sybiz Software Pty Ltd Adelaide, SA
Junior Programmer to Team Leader

- ↳ Writing programs in Microsoft Business BASIC to present an integrated accounting system on the newly released personal microcomputers.
- ↳ Writing programs in **8086** assembler to support the above applications.
- ↳ Database design and implementation.
- ↳ Writing programs in **Pascal** in a **MacOS** environment.
- ↳ Writing programs in **68000** assembler to support the **Macintosh** applications.
- ↳ Direct end-user telephone support.
- ↳ Dealer and Distributor support.
- ↳ R&D of voice technologies (Texas Instruments).
- ↳ Porting software across platforms.
- ↳ Project documentation.

Jan 1982 - Jan 1984 Various Blue collar positions All Australia
Post Army, Various
Wardsman - Royal Brisbane Hospital
Farming Mildura
Mining Mt Isa

Jun 1976 - Nov 1980 Australian Army (Regular) All Australia
Soldier. 319381 Addinall M.

Education

I hold a Master of Science, Information Technology
Sheffield Polytechnic - 1990

Various professional courses over a 25 year period.

Interests

Varied.

Guitar (Electric and acoustic)
Painting and drawing (Watercolour and Crayon)
Member of The International Society for Computational Biology.
Australian politics and history.
Surfing, world history, bio-informatics, reading.
