
A qualified software engineer bringing over 20 years' experience from the fields of commercial software and electronics R&D. I offer a unique combination of specific skills, general technical know-how, practical experience and an ease with other people which work together with a highly professional and results oriented attitude to ensure clients the best possible value for money.

Personal Details

Date of Birth: 27th October 1972 **Qual:** Bachelor of Engineering (UWA 1994)
Nationality: Australian
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Technology Summary

Technologies and platforms with the time (years) for which they have been used.

C/C++/C#/Java	16	ASP.Net, Web Services, XML, SOAP, .Net Remoting	4	
J2EE (JBoss, Sun), J2MID	6	Microsoft Project	5	
SQL Server / Oracle / PostgreSQL	8	Visio	3	
SQL/Relational DB Design	15	Enterprise Architect	4	
Windows (3.1 - XP)	11	MS Access (1.5, 2, 95, 97, 2k)	6	
UML / Jacobsen OOSE	6	MFC/ATL/.Net	6	
Object Oriented Design	11	ODBC/ADO/DAO	5	
Design Patterns & Best Practices	7	HTML/ ASP/JavaScript/PHP	6	
Agile Development Methodologies inc ASD		eXtreme Programming, Scrum &	5	
Embedded / CE	1	Z80,80x86,680x0,AVR,PIC	6	
Electronic (digital & lf) design	11	Protel	4	
Adobe Photoshop	7	Pagemaker / InDesign	2	
OS/2, Warp	3	Solaris, BSD, Linux, SCO	6	
Embedded - various	5	Windows CE	1	
			DB2/2	1

Other Skills

Commercially focussed management of development and production teams.

Effective communication and negotiation with customers, prospects and suppliers.

Effective and efficient analysis using available resources to develop strong and accurate requirement specifications.

Management of development projects over full project lifecycle, for completion within time and budget.

Effective leadership of small to medium teams (up to 20) of disparate personalities to form cohesive units tightly focussed on common goals.

Development of both bespoke systems and products destined for general consumer sales.

Preparation, submission and execution of Research and Development Grant schemes and tax concession programmes.

Development, introduction and management of Quality Assurance systems (ISO 9001 series).

Employment

Systemic Pty Ltd (December 2010 – Present)

Design, implement and test a wireless camera tethering application for OS-X and iOS. Objective-C, Apple SDKs, XML/SOAP.

Custom Wall Designs Pty Ltd (October 2010 – December 2010)

Design, implement and test the company's website, including development of turnkey modules used to allow customers to upload images and place orders on the custom wallpaper service offered by the client. Drupal, PHP, MySQL.

Cyber Technology Pty Ltd (August – November 2010)

Assisted in production and test flights of the company's CyberQuad Unmanned Aerial Vehicles. Flew to India as the demonstration pilot on a roadshow for the local distributor to several Police divisions in November.

Martin Oriental Company Ltd (May 2010 – June 2010)

Design, implement and test firmware modules for this company's OpenWRT/Vitesse based end-point router for centrally managed media distribution. Protocols requiring conversion/implementation included SAMBA, LLDP, RADIUS, SNMP and smart card support. C++/C

University of Western Australia Underwater Club Inc (March 2010 – Present)

Design, implement and maintain club's website. Drupal, PHP, MySQL. Involved development of multiple new modules to track club members' bookings, payments and events.

Department of Education and Training (February 2007-September 2009)

Member of the Application Development and Support team within DET. Developed (from internal customer requirement capture through open source component selection to development, testing and support) several high profile systems including

- FREDA (the financial reporting system for all government schools used to form the basis of grant applications and for mandatory reporting to the Office of the Auditor General.
- Internet File Exchange – a secure file exchange system used by students, staff and external contractors.
- Working With Children tracking system for all staff, volunteers and others associated with the department to track and manage currency of their working with children cards. This included development of a SOAP based web service for the Department of Child Protection allowing access for card verification in their system.

Technologies/products used include Java, J2EE, Struts, JSP, JSF, GWT, Hibernate, Oracle, LDAP, Eclipse, Enterprise Architect, linux, Tomcat, Spring, .Net, SQL Server.

Good Technology (March 2006) – JSP/Struts Consultant

- Migration of a portal application from legacy JSP (Zeus/sJSP) environment to JSP/Struts including SOAP messaging (client and server) to form several B2B links supporting the customer service website of a leading European car manufacturer. J2EE, JDK5, Oracle, Tomcat 5.5, Struts, Eclipse, JUnit, XPath XML.

The Cloud (December 2005 – February 2006) – J2EE Consultant

- Hired to implement an existing design for a deployment tracking system under Struts/J2EE. Analysis of the design showed that a rework was required, and consequently was responsible for the full BA, spec, unit test design, high level design and implementation cycle. Mentored dev team through their first structured implementation of EJBs, Hibernate etc including the use of xDoclet. Tight schedule of 6 weeks from start to go-live. MyEclipse, JBoss, Hibernate, Struts, PostgreSQL, JUnit, JUnitEE.

Derington Finance (November 2005 – Present) – Senior Engineer

- Development of visual storage management tool (full lifecycle). VC++, MFC, COM.
- Responsible for the development of a web based (secure and standards compliant) accounts system including GL, AP, AR, Payroll, Tax & Financial Reporting and other modules. Target market is for distributed clients and central application service. C#, ASP.Net, SQL Server, NHibernate, NUnit, CruiseControl, Scrum.

Systemic (November 2002 – October 2005) – Senior Product Engineer

- Developed middleware enabling integration of third party transport contractor's ordering portal into a logistics business' accounting processes and tools. This required a strong driver /champion of the development process to ensure that requirements capture, design and review were all performed in a timely fashion. Again, liaison with multiple vendors and the client was required to ensure optimal coordination of the participant systems. (MFC/C++, XP)

- Developed a CAM application which allowed generation of g-code toolpath programs from bitmap graphics for the creation of engraving and embossing plates. C++/MFC
- Developed a Respiratory Calorimeter for general sale. Responsible for the bulk of the project :-
 - Developed the product / project proposals, budgets and schedules which won the job.
 - Overall system architecture.
 - Mechanical & fluid engineering including prototype manufacture.
 - Design & prototyping of electronic equipment.
 - Design, implementation and testing of embedded software. C++
 - Design, implementation and testing of MFC based application for result storage and analysis including CE version for self contained IPaq/XDA based platform. C++/MFC
 - Implementation and documentation of supply lines & manufacturing processes.
 - Ensured equipment compliance with appropriate EMC, electrical and health safety regs.
 - Product support and training during beta testing and early phases of introduction of the equipment to major customers.
- Developed a volumetric/flow calibration rig for respiratory equipment. Included design and implementation of bipolar stepper controllers with current sensing for ‘missed’ steps, 44kHz sonar ranging sensor and the assembly of several models of respiratory breathing models which can be selected within the calibrator. Embedded C++
- Developed communications protocols and firmware for the management console in a commercial air conditioning product. Embedded C++
- Developed proof of concept mobile workforce management system, based on a JBoss web system combined with portable Windows CE (GPRS enabled) terminals. C++/MFC
- Developed distributed .Net GIS system for collation, management and plotting of data including maps, photos, terrain info and other personnel deployment information. (C#, Windows Forms, NHibernate, .Net Remoting, Web Services, XML/SOAP, ASP.Net)
- Ran a Scrum, Unit Testing (NUnit), NHibernate and .Net forms training workshop. Included developers and management team from local office and others flown in from overseas. Emphasis was on keeping developers tightly focussed on small scope tasks whilst being able to keep their project on track and manage the project scope.
- Contributed to development of a bespoke automated securitisor resale product selector system for newly approved loans in a retail credit society. (C#, NHibernate, SQL Server)
- Architect, senior engineer and mentor in re-factoring of a Y-line logging system (petroleum/gas exploration) into .Net, SQL Server, NHibernate, NUnit, CruiseControl & eXtreme Programming. Required the up-take of domain knowledge at high speed.
- Developed secure gateway for messaging between legacy paging system and offshore SMS provider. This project required the full lifecycle management for the product, including the initial scoping and requirements definition (requiring liaison with multiple vendors to design the best possible strategies for system interaction). (MFC/C++, Scrum)
- System architect and team lead in billing system development for new telecommunications carrier. (JBoss/Struts/MySQL/XP/Fedora Linux) An Australian company (MobileDialogue) was started and based around the re-sale of O2 (CellNet at the time) mobile phone accounts for the purposes of global roaming.
- System architect and senior developer for migration of in-house environmental monitoring package into the corporate management system (PostgreSQL, PHP, XUL, Apache, Tomcat, FreeBSD). Initial role was to pick up the domain knowledge of the environmental engineers and review the functionality & models present in their current ad hoc systems before generating scope documentation and planning the requirements capture & initial design documentation. This was approved, and I was then responsible for the completion of the system life cycle.
- Consulted in the planning and development of the business model for the delivery of a new business based around the provision of a marketplace for the exchange of mathematical applications.
- Developed mechanical couplings, electronics, firmware and software to retrofit a vertical spindle milling machine for g-code based CNC.

Commtech Wireless (Aug 1999 – November 2002) Project Manager, R&D Manager

- Developed hardware and software based test harnesses used to diagnose and demonstrate design faults in one model of a pager supplied by Commtech.
- Technical lead and project manager in new three tiered wireless messaging platform (“BASEPage 2000”) which ‘glued’ email, paging, PABX systems, SMS messaging, WAP and many other industry specific protocols together. This product is being sold commercially with customer installations under minimal support being the norm. Also responsible for most of the technical liaison with clients, requirements capture, management of the sprint cycles used in development of the core systems and enhancements and reporting of progress & continual cost benefit analysis. This system won the West Australian Information Technology and Telecommunications Award on a number of years. VC++, MFC, SQL
- Developed a standalone LCD/Keyboard based paging encoder and transmitter for sale into restaurant and small hotel markets. Included hardware and firmware design, product design (appearance, EMC requirements, usability etc), and establishing supply chain from local and Asian manufacturers. Embedded C++

- Developed QA change management system for R&D group.
- Authored & submitted successful application for WA Industry Support Scheme (WAISS) R&D grant.
- Ran hands-on POC studies into integration of BASEPage with OEM equipment, including PABX (Siemens, Ericsson, Kirk, NEC), paging (Xacom, Motorola, Ascom Nira), gaming (Aristocrat, Tattersalls), Nurse management (Sedco, Austco, et al) and many others.
- Developed a simulator using Java and Swing for training dealers in the use of BASEPage's in-built programmable interface to accommodate new protocols.
- Performed initial scoping, planning and business model & requirements analysis for an in-house inventory management system. (J2EE/JBoss/MySQL)
- Turned around three out-sourced R&D projects which had blown out from 6 months to three years each and had them completed within 6 months.

Monadelphous Engineering Associated (Nov 1998 – July 1999) Senior Network Engineer

- Wrote software which monitored the condition of those links to alert key personnel and track statistics for later negotiations with service providers. C++, MFC
- Developed back-end (ASP, ADO, SQL Server) for help desk SLA management and issue lodgement/tracking system.
- Redesigned the corporate WAN connecting the Perth Head Office with eight branches, three of which in remote locations.
- Also held key role in design, implementation and rollout of the corporate intranet, help desk and web sites.
- Key role in the evaluation of candidate (JD Edwards and Baan) for a new ERP system.

Department of Minerals and Energy (April 1998 – Nov 1998) Software Engineer

Tengraph is the DME's system for the storage, tracking and search of mining tenements in WA.

- Key role in porting of several components from OS/2 to Windows NT platforms. C++/MFC
- Developed enhancements to the graphical display systems (multi-layered 2d mapping based on several different coordinate systems using raw Win32 GDI) and to the db connection process (to DB2 on mainframe). C++/MFC
- Participated in preliminary studies for a web enabled version of the system.

Labfit Pty Ltd (Jan 1998 – March 1998) Software & Engineering Design Contractor

- Developed the software control, user interface components and significant portions of the mechanics of two models of robotic laboratory equipment – an infrared exhaust gas absorption type Carbon/Sulphur analyser with automated turntable for 48 samples and a Cartesian suspension analyser with up to 1000 samples, stirrer, diluter and software to monitor pH and conductivity of primarily soil samples. Now being sold worldwide. C++/MFC

Keytree Pty Ltd (Jun 1997 – March 1998) Analyst Programmer

- Designed and developed accounting package which included general ledger, accounts payable, accounts receivable, wages, loans, reconciliation, depreciation and asset management.

Worsley Alumina Pty Ltd (April 1997 – Dec 1997) Senior Network Engineer

- Responsible for the maintenance, documentation and planning of the corporate WAN.
- Designed and implemented a firewall and in-dial gateway for remote process managers.
- Provided the back end server infrastructure for the new web server.
- Assisted in business process documentation for SAP implementation.
- Investigated and designed three alternative architectures (including cost benefit and risk analyses) for the corporate network disk management system, using DEC Alphaservers and high performance Digital RAID storage systems.

Southern Group Ltd (Dec 1994 – March 1997) Software Development Manager

- Developed a digital audio mass storage system for radio broadcasters which enabled the online storage of large play-lists of audio managed with custom designed consoles. C++/MFC
- Project manager and technical lead for court recording and transcription system. Recorded quadraphonic audio tracks mixed down using in-house mixers. Long term storage using DDS and CDROM technologies. 'Turn allocation' system allowed cheap typing pools to replace the normal expense of stenographer. C++/MFC
- Managed life-cycle and key player in scoping, client liaison, requirements capture & planning for an extension of the court recording system designed for parliamentary level recording. Featured live video overlay consoles to control a 1000+ channel digital mixer and high speed HDSL large disk array recording environment. C++/MFC
- Managed the AUD2,000,000 R&D grant reporting and planning for the parliamentary recording (DAPR) system.
- Key role in design, implementation & management of ISO 9001 QA system.

The University of Western Australia (1994) Contract Programmer

- Developed software package for the capture and analysis of EMG data through an A-D converter board. C++
- Developed package which allowed user to define stimuli patterns as part of the system. C++

WA Institute of Sport (1993) Electronics & Software Developer

- Developed a package including sensors, serial port interface and data acquisition/analysis software for the assessment of athlete fitness using bicycle and rowing ergometers. C++

Instrument Data Communications (1992) Software Developer

- Developed simulator software for use in training of industrial protocols – most notably Modbus & similar ANSI protocols. C++

Leco (1991) Software Developer

- Developed stock and sales management system for WA branch of Leco (an international lab equipment mfr).

Cockburn Computers (1990) Software Developer

- Developed finance, project and membership tracking systems based in Clipper environment for customers including Fremantle Hospital, Women's Institute of Self Help, SDR Constructions and others.

KSE-Worley Joint Venture (1990) Software Developer

- Developed stats recording and analysis tool for welding NDT reports. C++
- Developed pipe stock cutting optimising software (to minimise waste). C++

J&G Computers (1989) Software Developer

- Developed general ledger package for University Building Society;
- Developed statistical analysis package for student enrolments at Curtin University;
- Assisted in the development of a water rates system for the Busselton Water Board.

Training/Award History

Level VI Scuba Instructor	AUSI	2011
Trimix Gas Blender Instructor	DSAT	2009
Emergency First Response 1 st aid instructor	EFR	2009
Master Scuba Diver Trainer	PADI	2009/2010
Marine VHF Operator Certificate of Competency	AMC	2010
Senior First Aid	TCP	2009
National Powerboat Handling Certificate	AYF	2006
Management of Multiple Projects and Objectives	Skillpath	2000
Welding & Thermal Cutting, Machining	TAFE SEMC	1999/2000
Financial Accounting	Canning College	1998
Microsoft Certified Systems Engineer	Sylvan Prometric	1998
Technical Management and Leadership	Skillpath	1996
Digital Server Engineer	Digital	1996
Bachelor of Engineering	University of Western Australia	1994