

ACADEMIC PERFORMANCE AND AWARDS

YEARS & LEVEL	QUALIFICATION	INSTITUTION & GRADES	HIGHLIGHTS
2004	Apple Design Awards	Apple Computer Inc. Winner, Runner-Up	<ul style="list-style-type: none"> • Winner: Open Source Product. • Runner-Up: Best New Product (Macromedia won). • Only Australian programmer to win in 10 years.
1988–1991 University	Bachelor of Science (Mathematics)	National University of S'pore 4 A's, 3 B's & 1 C	<ul style="list-style-type: none"> • Straight A's for 2 years in Computer Programming & Applications. • Offered honours in Mathematics.
1987	US Scholastic Aptitude Test	Verbal 710; Math 740	<ul style="list-style-type: none"> • 99th percentile among US college-bound high school seniors.
1984–1985 Pre-University	Cambridge GCE "A" Levels	National Junior College 4 A's, 1 B & 1 C	<ul style="list-style-type: none"> • A in Computer Science. • AI Othello player as final year project.
1980–1983 Secondary	Cambridge GCE "O" Levels	Anglo-Chinese Secondary School 7 A's & 1 B	<ul style="list-style-type: none"> • A's in English, Literature, 2 Maths & 3 Sciences

EMPLOYMENT HISTORY

YEAR	OCCUPATION	RESPONSIBILITY	HIGHLIGHTS
2001–	Analyst/Programmer	Senior Programmer WorleyParsons ICT	<ul style="list-style-type: none"> • Created domain migration framework (Migraine).* • Created ICT requisition system (Requisitor).*
2000–		Consultant Pixelglow Software	<ul style="list-style-type: none"> • Created font piracy protection system (LHFonts).* • Ported graph drawer to MacOSX (Graphviz).* • Created SIMD performance library (macstl).*
1999–2001		Senior Programmer Transfield Worley IT	<ul style="list-style-type: none"> • Created document delivery system (EMS).* • Created workflow designer (FlowMaster).* • Created IT asset register (Plantation).*
1998–1999		Analyst/Programmer Western Power BIT	<ul style="list-style-type: none"> • Improved distribution asset database (DFMS) and ported it to Windows NT.*
1998		Analyst/Programmer Rio Tinto R&TD	<ul style="list-style-type: none"> • Designed 20-page website. • Proposed metacontent storage.
1997–1998		Analyst/Programmer Department of Minerals & Energy	<ul style="list-style-type: none"> • Improved tenement/geographic database (TenGraph) on OS/2.*
1995–1996	Comics Publisher	Chief Editor, "Xene" Anthology	<ul style="list-style-type: none"> • Started & edited international 1,500-circulation comic book & website.
1991–1996 1998	I.T. Consultant Graphic Designer Copywriter	Proprietor, Eyeball Soup Designs	<ul style="list-style-type: none"> • Created Postscript resource manager in MacOS.* • Ported Chinese word processor to MacOS.* • Created Creative Circle Awards analysis database. • Designed 25 newsletter issues for Exxon project. • Designed national newspaper supplement for Singapore Polytechnic 4th Phase opening. • Designed for SIMEX Business Development.

* see details overleaf.

26A Davilak Crescent
Manning WA6152

PHONE 08 9450 2164

E-MAIL glen.low@pixelglow.com

PROJECT DETAILS

YEAR

COMPANY & REFERENCES

SCOPE & RESPONSIBILITY

2001–

WorleyParsons ICT

Mr. Gordon Macphail
Senior Programmer, WorleyParsons ICT
PHONE 08 9278 8698
EMAIL gordon.macphail@worleyparsons.com

- Created domain migration framework (Migraine).*
- Supervised team of 4-5 international programmers & analysts in analysis/design/implementation.
 - Website is Sharepoint 2003 + custom SQL.
 - Server is ASP.NET in C#.
 - User login new Windows domain calls server which processes migration through various modules for each application.
 - Modules are isolated and multithreaded for reliability and performance; interface and infrastructure use object-oriented design and patterns.
 - Migrated over 12,000 users through 30 apps over 10 months.

- Created IT requisition system (Requisitor).*
- Worked with minimal supervision in analysis/design/implementation.
 - SQL Server 2000 with SQL Workflow Services.
 - Website is DHTML + XML + XSLT + Javascript.
 - Server is SQLXML + ASP.NET in C#.
 - Application is C# Windows Forms with custom controls.
 - Clients enter requests through website, requests are routed to correct managers for approval and then to ICT for purchase.
 - Conducted regular coordination meetings with accounts, ICT and training, then supervised testing.
 - 5,000 requests, 3,000 purchases, \$28 million turnover over 30 months.

2000–

Pixelglow Software

Graphviz:
Dr. Stephen C. North
Executive Director of Technical Research
Information Visualization Research, AT&T Labs
PHONE +1 973 360 8638
EMAIL north@research.att.com

- Created font piracy protection system (LHFonts).*
- Worked with minimal supervision in analysis/design/implementation.
 - Server is PHP + XML.
 - Application is Objective-C (MacOSX) and C++ (Windows).
 - Shopping cart integrated with PayPal and credit card authorization.
 - Font installer uses per-machine copy protection.
 - Used cryptography: OpenSSL (MacOSX) and CryptoAPI (Windows).

- Ported graph drawer to MacOSX (Graphviz).*
- Worked with no supervision in analysis/design/implementation.
 - Application is Objective-C using Cocoa frameworks.
 - Command-line is C using Quartz and Quicktime.
 - Application allows tweaking of graph parameters and detects file changes, pipes graph to command-line for rendering.
 - Original AT&T code has 118,000 lines and 18 different build targets.
 - Conducted global beta test, website and release publicity.
 - Won Apple Design Awards 2004 for this product.
 - Invited by Apple Australia to introduce and demo developer conference in 2005: Wellington, Sydney, Brisbane, Canberra, Adelaide and Perth.

- Created SIMD performance library (macstl).*
- Worked with no supervision in analysis/design/implementation.
 - Library is C++ with templates.
 - Uses advanced C++ techniques such as expression templates.
 - Uses SIMD on PowerPC AltiVec and Intel SSE for up to 450x speed up over Standard Library code.
 - Well-regarded in numerics work worldwide.

26A Davilak Crescent
Manning WA6152

PHONE 08 9450 2164

E-MAIL glen.low@pixelglow.com

PROJECT DETAILS

YEAR

COMPANY & REFERENCES

SCOPE & RESPONSIBILITY

1999–2001

Transfield Worley IT*Created document delivery system (EMS).*

- Worked in a team of 2-3 programmers & analysts with minimal supervision in analysis/design/implementation.
- Website is DHTML + XML + XSL + Javascript.
- SQL Server 2000 stores & replicates pre-gzipped blobs and metadata.
- Document + logo server is ISAPI C++ DLL.
- Full-text indexing through custom IFilter DLL.
- Document numbering in Sharepoint through SQL triggers.
- Different business units can selectively override documents, customize logos and details.
- Up to 18,000 hits per day on 48,000 documents, compressed to 2.4Gb, replicated to 12 servers in 10 countries (from modems to T1 lines).

Created workflow designer (FlowMaster).

- Worked with minimal supervision in analysis/design/implementation.
- Java MDI with XML store & HTTP comms with custom controls
- Renders charts in VML; uses strict model/view separation.
- Used by QA/QC & document control to author over 800 procedures.

Created IT asset register (Plantation).

- Worked with minimal supervision in analysis/design/implementation.
- Java client + SQLXML middle tier, with custom SQL updategram code.
- Tracks over 25,000 assets

1998–1999

Western Power BIT

Mr. Paul Keating
Senior Project Leader, BIT
PHONE 08 9326 6186 / 08 9381 2231
EMAIL paul.keating@wpcorp.com.au

Improved distribution asset database (DFMS) and ported it to Windows.

- Worked in a team of 3–5 programmers with minimal supervision in maintenance/implementation.
- Code is client/server-based threaded database of distribution facilities with mainframe access.
- Programmed over 2,000 bug fixes & program enhancements in 120,000 lines of C including search by asset proximity, printing via metafile templates.
- Ported entire code base to Windows NT.

1997–1998

Department of Minerals & Energy*Improved tenement/geographic database (TenGraph) on OS/2.*

- Worked with minimum supervision in a team of 6 programmers in maintenance phase.
- Programmed over 1,000 modifications in C for over 80 bug fixes and program enhancements; rewrote dialog functionality, SQL and APPC queries, thread control, file and database synchronisation, polygon-hole manipulation, OS/2 custom controls.
- Code is client/server-based multi-threaded graphical database of mining tenements & associated geography—30 man-years of work.

1991–1996
1998**Eyeball Soup Designs***Created Postscript resource manager in MacOS.*

- Coded C/C++ program from scratch and without supervision.
- Code preflights and downloads Postscript to the printer.
- Commended by several international users, including DTP service bureaus as far away as Alaska, USA.
- Customized as font downloader for an American company.

Ported Chinese word processor to MacOS.

- Worked with minimal supervision from original programmers.
- Ported over 14,000 lines of C code and partially ported over 46,000 lines of C++ code.
- Code was PC-based GUI Chinese word processor/page layout with multiple forms of Chinese character entry, proprietary font encoding and polygonal font display.

26A Davilak Crescent
Manning WA6152

PHONE 08 9450 2164

E-MAIL glen.low@pixelglow.com

WORK SKILLS

	PROFICIENCY	LAST USED	LEVEL	DURATION
SYSTEMS	PC (Windows, OS/2, Linux)	Current	Expert	12 years
	Macintosh (MacOS, MacOSX)	Current	Expert	22 years
LANGUAGES	C	Current	Expert	12 years
	C++	Current	Expert	12 years
	C#	Current	Expert	5 years
	HTML/DHTML	Current	Expert	12 years
	Java	2002	Proficient/Expert	3 years
	Javascript/JScript	Current	Proficient	6 years
	Objective-C	Current	Expert	4 years
	Pascal	1992	Proficient	10 years
	Perl	2005	Basic	3 months
	PHP	Current	Proficient/Expert	2 years
	Postscript	1997	Proficient	5 years
	SQL/T-SQL	Current	Expert	10 years
	VBScript	Current	Proficient	5 years
	Visual Basic	2002	Proficient	2 years
	XML/XSLT/XSD	Current	Expert	6 years
LIBRARIES	JDK (Sun Java)	Current	Basic/Proficient	9 months
	MacOS Carbon	Current	Proficient	12 years
	MacOS Cocoa	Current	Proficient/Expert	4 years
	.NET Framework	Current	Proficient/Expert	5 years
	OS/2 Presentation Manager	1998	Proficient	1 year
	STL (Standard C++ Library)	Current	Proficient	6 years
	Win32 (Windows 95/98/NT)	Current	Proficient/Expert	8 years
APPLICATIONS	Acrobat (PDF)	Current	Proficient	3 years
	DB2/2 (Database)	1999	Proficient	2 years
	Filemaker Pro (Database)	2000	Proficient/Expert	4 years
	GoLive (Web Design)	Current	Basic	2 years
	Illustrator (Illustration)	Current	Proficient	10 years
	InfoPath (Forms/XML)	Current	Proficient/Expert	6 months
	MS IIS (Web Server)	Current	Proficient/Expert	8 years
	MS Office (Productivity)	Current	Basic/Proficient	8 years
	Photoshop (Image Editing)	Current	Proficient	12 years
	Sharepoint (Doc. Management)	Current	Proficient	6 years
	SQL Server (Database)	Current	Proficient	8 years
	Visual Studio IDE (Development)	Current	Expert	8 years
	Xcode (Development)	Current	Expert	3 years

WORK PREFERENCES

PREFERENCES

- Games, Imaging & Graphics
- Graphical User Interface Programming
- Object-Oriented Design, Languages & Frameworks
- Document, Content & Metacontent
- Performance Optimization, Vectorization & Parallelization
- Compression & Cryptographic Algorithms
- Artificial Intelligence (e.g. Prolog, Neural Nets)

26A Davilak Crescent
Manning WA6152

PHONE 08 9450 2164

E-MAIL glen.low@pixelglow.com

CURRENT INTERESTS

INTERESTS

- Christian Apologetics/Philosophy
- Comics (Marvel/Independent)
- Cooking (European Desserts)
- Dogs
- Model Aircraft/Spacecraft
- Photography
- Science Fiction (Novels/Movies)
- Vermiculture (Worm Farming)
- Creative Writing (Short Stories)

EXTRA-CURRICULAR ACTIVITIES

YEARS & LEVEL	ORGANISATION	RESPONSIBILITY	HIGHLIGHTS
Church	Bethesda Hall (AMK)	Youth Group Leader; Newsletter Committee	<ul style="list-style-type: none"> • Created many innovative workshops • Organised & performed (live audience) music gospel rallies for over 3 years • Introduced desktop publishing.
Volunteer	Pyramid Game	Game Show Contestant	<ul style="list-style-type: none"> • Reached "Top 10" score in 6 month period (100 general knowledge games). • Invited to "Champion of Champions" grand final rounds.
Volunteer	Science Fiction Association (Singapore)	Chief Editor, "Tesseract" Magazine; Committee Member	<ul style="list-style-type: none"> • Started, edited & wrote 300-circulation magazine featuring local fiction. • Organised national live-role playing game featuring constructed sets & hundreds of participants.
University	"The Ridge" Newsletter	Layout Editor; Deputy Chief Editor	<ul style="list-style-type: none"> • Edited & wrote for campus newsletter. • Implemented desktop publishing training and workflow.
University	Computer-Based Learning Centre	Vice Chairman; Special Consultant	<ul style="list-style-type: none"> • Ran 3 computer labs for student use. • Created cheap network substitute.
University	Varsity Christian Fellowship	Camp Commandant; Cell Group Leader	<ul style="list-style-type: none"> • Managed 100-participant 1-week camp.
Pre-University	Science & Maths Society	Chairman Math Quiz; Chairman Science Quiz	<ul style="list-style-type: none"> • Organised national level competition for all secondary schools.
Secondary	Science Society	School Representative	<ul style="list-style-type: none"> • 3rd individual & 2nd team prize in national science quiz.
Secondary	Maths & Computer Club	School Representative	<ul style="list-style-type: none"> • 2nd team prize in computer quiz on national TV (as programming member). • 1st team prize in national science fair (maths CAI program).

26A Davilak Crescent
Manning WA6152

PHONE 08 9450 2164

E-MAIL glen.low@pixelglow.com