NAME

Mr. Glen Low

BIRTHDATE 5 March 1967

ACADEMIC PERFORMANCE AND AWARDS

YEARS & LEVEL	QUALIFICATION	INSTITUTION & GRADES	HIGHLIGHTS
2004	**Apple Design Awards**	Apple Computer Inc. Winner, Runner-Up	• 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	• Straight A's for 2 years in Computer Programming & Applications. • Offered honours in Mathematics.
1987	**US Scholastic Aptitude Test**	Verbal 710; Math 740	• 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	• 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	• A's in English, Literature, 2 Maths & 3 Sciences

EMPLOYMENT HISTORY

YEAR	OCCUPATION	RESPONSIBILITY	HIGHLIGHTS
2001–	**Developer**	Director Pixelglow Software	• Created generative art iOS app (Electric Sheep).* • Created domain name search server (IDS).* • Created diagram sketcher iOS app (Instaviz).* • Created font piracy protection system (LHFonts).* • Ported graph drawer to Mac OS X (Graphviz).* • Created SIMD performance library (macstl).*
2000–2007	**Analyst/Programmer**	Senior Programmer WorleyParsons ICT	• Created domain migration framework (Migraine).* • Created ICT requisition system (Requisitor).* • Created document delivery system (EMS).*
1999–2001		Senior Programmer Transfield Worley IT	• Created workflow designer (FlowMaster).* • Created IT asset register (Plantation).*
1998–1999		Analyst/Programmer Western Power BIT	• Improved distribution asset database (DFMS) and ported it to Windows NT.*
1998		Analyst/Programmer Rio Tinto R&TD	• Designed 20-page website. • Proposed metacontent storage.
1997–1998		Analyst/Programmer Department of Minerals & Energy	• Improved tenement/geographic database (TenGraph) on OS/2.*
1991–1996	**Comics Publisher** **I.T. Consultant** **Graphic Designer**	Proprietor Eyeball Soup Designs	• Started & edited international 1,500-circulation comic book & website. • 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.*

CONTACT

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PROJECT DETAILS

YEAR	COMPANY	SCOPE & RESPONSIBILITY
2001–	**Pixelglow Software**	

Created generative art iOS app (Electric Sheep).
- Worked with minimal supervision in analysis/design/implementation.
- Objective-C (Cocoa Touch, AV Foundation).
- Download and displays generated art from server.
- Uses Core Animation for video fading, AV Foundation to composite for seamless playback.

Created domain name search server (IDS).
- Worked with minimal supervision in analysis/design/implementation.
- C++ (libcmph, libre2, COCA), SQLite.
- Uses n-grams, perfect hash functions, Aho-Corasick string matching.
- Implemented a threaded HTTP server in C++.
- Fast enough for real-time domain name search.

Created diagram skecher iOS app (Instaviz).
- Worked with no supervision in analysis/design/implementation.
- Objective-C (Cocoa Touch, Core Animation) and C++
- Shape recognition using geometric analysis (including a rare minimal enclosing triangle algorithm) and Naive Bayesian Classifier trained on 2,500 actual shapes.
- Automated graph layout with Graphviz.
- Layered architecture with modular libraries (GraphKit, GraphKitDraw, Geom and Recog).
- App sold over 13,000 copies.
- Top 100 Grossing Business app in App Store.

Created font piracy protection system (LHFonts).
- Worked with minimal supervision in analysis/design/implementation.
- PHP + XML; 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.
- Objective-C (Cocoa) and C (Quartz, 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 and18 different build targets.
- 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.
- Commissioned by AT&T to improve code and port to .NET in 2008.

Created SIMD performance library (macstl).
- Worked with no supervision in analysis/design/implementation.
- Library is modern header-only 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.

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YEAR	COMPANY & REFERENCES	SCOPE & RESPONSIBILITY
2000–2007	**WorleyParsons ICT**	*Created domain migration framework (Migraine).* • Supervised team of 4-5 in analysis/design/implementation. • Sharepoint 2003 + custom SQL; 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. • DHTML + XML + XSLT + Javascript.; 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.
1999–2001	**Transfield Worley IT**	*Created document delivery system (EMS).* • Worked in a team of 2-3 in analysis/design/implementation. • DHTML + XML + XSL + Javascript; ISAPI C++ • SQL Server 2000 stores & replicates pre-gzipped blobs and metadata. • Full-text indexing through custom IFilter DLL. • Business units can selectively override and customize documents. • Up to18,000 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**	*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.

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WORK SKILLS

	PROFICIENCY	LAST USED	LEVEL	DURATION
SYSTEMS	PC (Windows, OS/2, Linux)	Current	Expert	16 years
	Macintosh (MacOS, MacOSX)	Current	Expert	26 years
	iPhone/iPad (iOS)	Current	Expert	4 years
LANGUAGES	C/C++	Current	Expert	16 years
	C#	2008	Expert	6 years
	HTML	Current	Expert	16 years
	Java	2002	Proficient/Expert	3 years
	Javascript/JSON	Current	Expert	10 years
	Objective-C	Current	Expert	8 years
	Pascal	1992	Proficient	10 years
	PHP	Current	Proficient/Expert	6 years
	Python	Current	Basic	1 year
	SQL	Current	Expert	14 years
	Unix Shell	Current	Proficient	8 years
	Visual Basic	2002	Proficient	2 years
	XSLT	Current	Expert	10 years
LIBRARIES	Cocoa/Cocoa Touch	Current	Expert	8 years
	ExtJS	2009	Proficient/Expert	1 year
	jquery	2010	Basic/Proficient	2 years
	.NET Framework	2008	Proficient/Expert	6 years
	node.js	Current	Proficient	1 year
	Win32 (Windows 95/98/NT)	2008	Proficient/Expert	10 years
APPLICATIONS	Apache (Web Server)	Current	Proficient	6 years
	DB2/2 (Database)	2000	Proficient	2 years
	Filemaker Pro (Database)	2000	Proficient	4 years
	Git (Source Control)	Current	Basic/Proficient	1 year
	Illustrator (Illustration)	Current	Proficient/Expert	16 years
	MS IIS (Web Server)	2008	Proficient/Expert	8 years
	Photoshop (Image Editing)	Current	Proficient	16 years
	PostgreSQL (Database)	Current	Proficient	1 year
	Sharepoint (Doc. Management)	2008	Proficient	6 years
	Subversion/Trac (Source Control)	Current	Proficient/Expert	4 years
	SQLite (Database)	Current	Proficient/Expert	2 years
	SQL Server (Database)	2008	Proficient	8 years
	Visual Studio IDE (Development)	2008	Expert	10 years
	Xcode (Development)	Current	Expert	8 years

WORK PREFERENCES

PREFERENCES

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

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