CV for Burt Alexander

Email: mailto:burt.alexander@gmail.com

Nationality: Australian, Canadian

Summary:
- 23 years as a computer consultant/analyst in the IT industry
- 23 years of OO analysis, design and construction
- Strong proponent of Extreme Programming methodology
- 16 years of Client/Server architecture experience
- In depth experience with Java, SQL, Cobol, Windows NT, XP, Linux, Mac OSX
- Strong experience with DB2, Oracle, Informix, MySQL, Unix, EJB, JSP, Spring, Hibernate
- Degree in Chemical Engineering, University of Waterloo, ON, Canada 1994
- Post degree education:
  - Advanced Java programming, JDBC, RMI – Learning Tree, 1997
  - DB2 relational database design – Learning Tree, 1996

Personal Strengths:
- Ability to 'hit the ground running', very quick learner
- Strong interpersonal skills, good team player
- Strong communication skills at all levels
- Imaginative problem solving abilities

Career Goals:
- Technical management roles, with emphasis on system design and analysis
- Senior programmer/architect, infrastructure design

Additional:
- Canadian and Australian Citizenship
- Restricted security clearance with the Australian Department of Defence, as of 02/04/07, expired
- Secret security clearance with the Australian Department of Defence, as of 17/06/08, expired
- Project administrator for Entrainer, Open Source Brainwave Entrainment
  - http://entrainer.sourceforge.net

Interests:
- Windsurfing
- Weight Lifting
- Motorcycle touring
- Bass Guitar

Burt Alexander - Skills

Languages:
- Java, 18 years
- Swing (JFC), 14 years
- SWT, 6 months
- JavaFX, 3 years
- JEE Technologies, 12 years
- SQL, 19 years
- Cobol, 3.5 years
- HTML, 9 years
- Spring, 6 years

Web Technologies:
- Spring Boot, 1 year
- Docker, 3 months
- Websphere, 1 year
- Orion Application Server, 3 months
- Tomcat, 8 years
- JBoss, 2 years
- JSP, 3 years
- Servlets, 6 years
- Apache Web Server, 4 years
- Jigsaw Web Server, 3 months
- Domino Web Server, 3 months
- JRun Servlet engine, 6 months
- JServ Servlet engine, 1 year
- Netscape/Mozilla, 6 years
- JavaScript, 1 year
- XML, JAXB, 4 years
- Firefox, 8 years
- Seam, 1 year
- Apache CXF, 1.5 years
- Apache MINA, Netty, 5 years
- Google GWT, 6 months
- Hazelcast, 1 year

Operating Systems:
- Linux, 15 years
- Mac OSX, 9 years
- Windows (98, NT, 2000, XP) 16 years
- OS/2, 3.5 years
- Unix, 12 years

Platforms:
- PC, 20 years
- Client/Server architecture (including n-tier), 15 years
- Mainframe, 2 years
- RS6000, 2.5 years

Development Tools:
- JBuilder, 1 year
- Eclipse, 12 years
- Intellij, 7 months
- Netbeans (Forte For Java), 6 months
- Together, 1.5 years
- Rational Rose, 6 months
- JPadPro, 3 years
- Symantec Visual Café, 6 months
- Microfocus Workbench, 3.5 years
- Netron Fusion, 2.5 years
- PVCS, 4 years
- PCMS, 2 months
- CS-RCS, 1.5 years
- JTest, 3 months
- JavaScope, 2 months
- JavaSafe, 2 months
- JUnit, 9 years
- CVS, 1.5 years
- Subversion, 10 years
- Agile methodologies, 12 years
- Maven, 7 months
- Apache Ivy, 1.5 years
- Git, 3 years
- Gradle, 6 months

Databases:
- DB2 (mainframe and UDB), 4 years
- Informix, 2.5 years
- XDB, 3.5 years
- Oracle, 2 year
- Access, 1 year
- InstantDB, 1 year
- MySQL, 8 years
- Ingres, 1 year
- Hibernate ORM, 4.5 years

Office Products:
- MS Word, 4.5 years
- WordPerfect, 6 years
- Lotus 123, 2 years
- Quattro Pro, 2 years
- Excel, 3 years
- PowerPoint, 1 year
- MS Project, 3 months
- OpenOffice, 3 years

Burt Alexander - Experience

Employment:

February 13 – Present **Intergalactic Space Janitor**

- Scrubbing out shit stains
- Removing age old clogs in toilets and sewers
- Containing and eliminating sewerage overflows
- Restoring organic balance for the introduction of E. coli
- Waste disposal

February 13 – March 16 **Merge Gaming / Codeworx**

- Senior Java developer working on poker software
- Responsible for enhancements and bug fixes to the poker client software
- Tutored in the use of the latest Java technologies
- Created example projects and Server prototypes using Spring 4.0 for future development
- Architected and built a payment gateway for multiple providers using Spring Boot, Docker targeting the AWS cloud
- Identified key weaknesses in the server architecture
- Created a working server prototype replacing use of custom socket connections with Netty 4.0 and Hazelcast
- Successfully implemented Netty 4.0 in production servers for SSL communications between the client and servers
- Implemented a data caching replacement using Spring 4 and Hibernate 4 annotations, created a framework project which can be used for any DB related work
- Implemented a JMX based monitoring server to facilitate statistic gathering
- Implemented industry standard logging in client & server using SLF4J
- Architected and implemented an online payment gateway for Authorize.net and Braintree using Spring Boot and Spring AMQP, targeting the AWS cloud
- Implemented a websocket-based production server control application using Spring Boot
- Implemented metrics aggregation and display in production using Spring Boot and RRD4J

June 12 – December 12 **Transaction Network Services**

- Senior Java contractor working on the integration of Merchant Link and Bancanet systems into the TNS architecture (Tomcat, ActiveMQ)
- Involved creation of new modules and global changes to existing architecture
- Heavy use of Agile methodologies and technologies (Rally, wikis)
- Heavy use of Spring 3.1, Maven, JUnit technologies (PowerMock, Mockito)
- Worked in a small team (5 to 6) to tight deadlines
- Required rapid understanding of the existing TNS architecture and the ability to pick up new technologies quickly

November 09 – May 12 Sigtec PTY

- Senior Java developer/architect for the Rapid GUI, an Swing based UI for the control and processing of real time messages from fleet vehicles
    - integrated Log4j into the project
    - added customizable look and feel via properties
    - reworked existing code to remove inconsistencies and potential errors
    - provided support and bug fixes to existing customers
- Provided assistance and expertise to less experienced developers
- Created interface control, high level and detailed design documentation
- Used GWT to create a Web Dashboard to display running and on time services
- http://www.kizoom.com/standards/siri/index.htm, architect and developer for the Rapid SIRI implementation, an XML/ SOAP protocol to allow distributed computers to exchange real-time information about public transport services and vehicles.
    - originally implemented for one service on Axis 1.3 and Tomcat 5, many more services were implemented including subscription/publication, then the project was ported to Apache CXF and Tomcat 7 and finally to Spring
    - two customers supported, project can be built for a client with the change of a build property
    - processes multiple update messages and publications per second
    - introduced Hibernate to the project
    - integrated Emma into the build
    - tight deadlines necessitated detailed understanding of Spring and Hibernate tuning
    - provided feedback to the SIRI group regarding errors in the specification
    - implemented custom caching using EhCache to speed up message processing
- Worked closely with my fellow employees to tight deadlines
- Created Netty-based replacement for outdated XML-RPC network communications

July 08 – October 09 Department of Environment and Resource Management, Queensland

- Java developer on the LTLr project, a web based rework of their existing land tenure system
- Spring, Seam, xHTML, Hibernate, Tomcat, Ingres DB
- Worked on various aspects of the project including
    - the penalty calculation service
    - design and implementation of the reporting infrastructure
    - rework of the certificate infrastructure
    - rework of error/warning messages
    - coding some of the more complex reports
    - coding some of the web modules
- Worked closely with the business analysts and with my fellow team members to tight deadlines

June 08 – Present Entrainer, Open Source Brain Wave Entrainment

- https://sourceforge.net/projects/entrainer, http://entrainer.sourceforge.net
- Entrainer is an open source program that uses animations and sound to entrain brain waves.
- Programmable via XML files
- Can save output to WAV file

Jan 06 – June 08 **Department of Defense, Queensland**

- Lead developer of NetSurv (Jan 06 – Oct 07), a network visualisation program for the DOD network infrastructure in Australia built upon Jung graphing framework., and lead developer of JPT (Oct 07 – present), an application to provide collaborative documentation and information sharing tool based on Struts/JSP/Tomcat/Hibernate/MySQL
- Introduced Eclipse and Subversion to the project
- Refactored Swing code to improve code base, introduced custom event based communication between components
- Refactored custom object/relational software to allow for ease of future customisation and to remove coding mistakes
- Introduced Log4j into the project
- Enhanced project using sounds and special effects.
- Created RMI infrastructure to communicate with OpenMap and other external programs
- Converted custom O/R mapping to Hibernate
- heavy use of annotations
- Assisted with sister project – Survivability, coded using Anylogic, a software simulation package
- provided architecture enhancement and feedback
- optimized code
- profiled existing system to locate inefficiencies

Mar 05 – Dec 05 **Disability Services, Queensland**

- Lead Java consultant on the DISQIS project, a web-based application being written in the Cúram framework, based upon the Struts framework
- Undertook training in the Cúram product
- Researched and recommended technologies and products for the project, with emphasis on functionality and cost savings
- Designed the development environment including:
    - Eclipse
    - Tomcat
    - MyEclipse
    - Unit and integration testing with JUnit and JwebUnit
    - Automatic test running with Continuous Testing plugin
- Designed the release environment including:
    - Linux
    - Subversion
    - Cruisecontrol
    - Ant
    - Designed and constructed a Swing-based application to control the build and release process
- Mentored less experienced developers
- Presented modern software construction concepts to the team

April 04 – Oct 04 **GBST Holdings, Java Architect**

- Assisted in development of J2EE reference architecture, using
    - Spring J2EE framework
    - JSP 2.0
    - JBoss 3.2
    - Struts (abandoned in favour of Spring's web framework)
    - JCA
    - Session ejb's and MDB's
    - JMS
    - Hibernate
- Implemented unit and integration testing procedures for GBST using JUnit
- Directed discussions for continuous build process at GBST
- Researched porting the reference architecture to Weblogic, Websphere, and the web frontend to Tomcat

April 03 – January 04 **Capital Finance, Java Architect & Senior Developer**

- Lead developer on the Café project, a JSP based quote system for car dealers
- Worked to tight deadlines and delivered on time the first iteration of the system
- Managed poorly designed code inherited from previous architect
- Architect for the next iteration of the system
- Introduced OO hierarchy which centralized code and minimized the detrimental impact of poor design decisions prior to joining the project
- Rapid integration of the new architecture (2 weeks) with minimal impact on existing functionality
- Mentored team members with advanced OO concepts

October 01 – September 02 Kaz Computing, Java Architect & Developer

- On the Atune superannuation project, assisted in identifying and correcting key weaknesses of the architecture
- Assisted in the design and implementation of an object oriented business layer that is compatible with the existing business layer
- Developed OO architecture for presentation classes & migrated existing procedural code
- Introduced development tools including Ant, JUnit and Eclipse
- Mentored team members with advanced OO concepts
- Recommended and assisted in implementing an Extreme Programming environment
- Developed applications to a very tight deadline

September 00 – April 01 TAB, Java Architect

- Lead architect on Eureka project
- Analyzed existing system to pinpoint inadequate design and implementation problems
- Rearchitected the core infrastructure to address the technical inadequacies
- Created GUI architecture that loaded gui component definitions from XML and created the layouts dynamically using Java Beans and reflection
- Worked with external consultants to finalize the architecture
- Improved build process using ANT
- Introduced Extreme Programming techniques including unit testing with JUnit
- Mentored junior members of the team introducing OO and proper design concepts
- Assisted with the selection of tools, including Together, BugSeeker and JTest
- Assisted with bug fixing and coding components, including the cashbox removal system

May 00 – July 00: marchFIRST, Senior Java Engineer

- Created Java-centric program archive
- Self teaching included XML Java parsers, Enterprise JavaBeans (EJB), Java Server Pages
- Subcontracted to Macquarie Bank to work on internal EJB stock purchasing system, 6 week project using VisualAge 3.0 and Websphere, Swing front end
- Architected JSP based internal intranet system, modeled & constructed JavaBeans

November 98 – April 00: **Streamlink Communications, Java consultant**

e-Procure

- Technical lead on the e-Procure development project, an internet based procurement system
- Constructed logging subsystem
- Advised on and co-designed system infrastucture
- Advised on design of Swing-based administrative programs
- Assisted in design & construction of the various subsystems
- Three tier architecture, DB2 database accessed via Java servlets, generating HTML for the browser
- Experience setting up and configuring Apache web server, JRun servlet engine, JServ servlet engine, Domino web server, IBM Websphere on NT & Linux
- Key involvement with architecture redesign, including Enterprise JavaBeans
- Actively participated in the design of an EJB architecture to separate EJB logic from business logic
- Project leader on e-Procure 1.2 development
- Implemented proper version control within the project

August 98 – November 98: **Sun Microsystems, Java consultant**

- Construction of in-house document control system
- 3-tier client server coded in Java using JDBC, RMI and Swing
- can run as both application and applet
- Coca Cola SmartCard system
- Design and construction of logging system
- Design of coding specifications
- Design and construction of generic read/write interfaces

1994 – 1998: **Netron Inc., Computer consultant/ Frame Engineer***

In this time I have been a contractor at the following sites:

July 97 – Feb 98: **Motorola Telecom Ltd., Basingstoke, UK**

- Java developer/programmer for project MARS, an Internet-based call tracking system, development on Windows NT/XDB
- Client/server Java front end communications to Cobol/Informix on Unix
- Designed and developed encryption algorithm in Java for encryption of passwords
- Analysis of program requirements to produce efficient reusable Java objects
- Effective Cobol and dynamic SQL coding to mask database inefficiencies
- Conducted a CORBA viability study for the project

July 95 – June 97: **Barclaycard, Northampton, UK**

- Frame Engineer* and programmer for Unix/CICS/Informix and Mainframe/CICS/DB2 client/server credit card system, development on OS/2/XDB
- Initiated and performed key design role of the program infrastructure for the Retrofits Project – this involved communication between Unix and Mainframe platforms with testing on the PC
- Coded the Barclaycard Compiler – a GUI Cobol program that bundled Netron's and Microfocus' tools to quickly build programs
- Coded REXX scripts to scan a new DDL, export data from the appropriate XDB tables, run the DDL, modify the exported data accordingly and re-import the data into the modified tables
- Wrote highly efficient audit trail program
- Coded the letters program that extracted data for letter production
- Programmer and Frame Designer* for the Aramis project, a Unix-based credit card system
- Construction of key components of this system, including table maintenance sub-system

June 94 – May 95: Hudson's Bay Company, Toronto, Canada

- Junior programmer for CICS/DB2 inventory system on the mainframe, development on Windows 3.1/DOS/XDB
- Redesign of key maintenance sub-systems
- Constructed table maintenance programs, some of which involved dynamic SQL
- Developed programs learning Cobol and Netron Frame Technology

*** Explanation of Netron Technology:**

Netron's frames objectify code that is common to similar applications and allows this code to be parameterized for each individual application. This reduces the amount of source code and provides high levels of quality and productivity. This technology works best with verbose languages such as Cobol, but is not restricted to any language as demonstrated with its use to produce Java code on the Motorola MARS project.

References available upon request.