

RÉSUMÉ

Note: This is the downloadable version of my Online Résumé which is hosted on :

<http://www.cyberdemia.com/personal/resume/resume.html>

Name : Alexander Y. C. Yap

Email : alexycyap@hotmail.com

Phone : 0408336017

Location : Melbourne, Victoria, Australia.

Citizenship : Australian

SKILLS SUMMARY

Summary of main technical skills :

- *Sun Certified Business Component Developer (SCBCD)*
- *Sun Certified Programmer (SCJP)*
- *Agile Methodology : Since 2005*
- *Ruby on Rails : Since 2008*
- *Web 2.0 AJAX (DWR, GWT & jQuery) : Since 2006*
- *Java EE (JSP, Struts, JSF, EJB 2.x & 3, SOAP ,etc) : Since 2001*
- *Java SE (Swing/AWT, multithreading, JNI, JDBC etc) : Since 1998*
- *Linux : Since 2000*
- *HTML/XHTML, Javascript, DHTML & CSS : Since 1995*

RECENT WORK EXPERIENCE

Consultant

July 2007 – September 2008

Employer

ThoughtWorks Australia

- Worked on an updated Web 2.0 travel website for members to contribute travel-related information, such as reviews of tourist attractions, and interact with other travelers. The application was based on a corporate service-oriented architecture consisting of the following technologies:
 1. *Struts 2*
 2. *jQuery*
 3. *Hibernate 3*
 4. *Spring*

Automated builds and testing were implemented using :

1. *Bamboo*
2. a custom Java version of *Story Runner*
3. *Selenium*
4. *JUnit & JSUnit*

Responsibilities

- Implemented a Restful Web application, using *Ruby on Rails 2*, that allowed employees to apply for and manage their annual/personal leave.
- Delivered a Restful Web application that allowed prospective students to search for and enquire about PhD research projects offered by the University of Sydney. Technologies used included *Ruby on Rails 2* with plugins like:
 1. *Active Scaffold*
 2. *Acts As State Machine*
 3. *TinyMCE*
 4. *Whitelist*

Automated builds and testing were implemented using :

1. *RSpec*
2. *Selenium RSelenese*
3. *Cruise Control*

Mentored client developers on *Agile Methodology* practices such as test-driven development (TDD) and pair-programming.

- Developed a Web application that enabled people to apply for credit cards from a bank, using Java Enterprise technologies like:
 1. *Websphere* Application Server
 2. *SQL Server* (stored procedures)
 3. *Struts 2*
 4. *Hibernate 3*
 5. *Selenium*
 6. *EJB Timers*
 7. Third party Java-based reporting framework

**Senior J2EE
Developer**

June 2006 - June 2007

Client

Toll Solutions

Responsibilities

- Developing in-house transportation management J2EE application based on the following technologies:
 1. *AJAX* based Web interface using *Direct Web Remoting (DWR)*, as well as various other web-tier technologies like *JSF (MyFaces)*, *JSTL* and *NetUI*.
 2. Persistence tier using *iBatis* to invoke stored procedures and SQL statements on an *Oracle* database.
 3. Integration with *Oracle Transportation Management (OTM)* by messaging via *webMethods*.
 4. Integration with *Atlassian JIRA* issue management system via *Web Services*.
- Designed and implemented a database driven localization framework for the application. Localized parts of the application to Simplified Chinese.
- Designed and implemented a generic job scheduling framework using *Quartz*.
- Initiated and managing daily stand-up meetings to enable the development team to share knowledge and gain an overall understanding of the development effort. As a result, the team became more cohesive and focused, and more able to properly integrate the various sub-projects into a consistent whole.
- Written *Ant* build script to allow deployment of the application to a remote *WebLogic* server to facilitate automated builds.
- Set up *Daisy* Wiki for the team to easily document and share useful technical information such as HOWTOs, environmental configurations and design patterns. This dynamic sharing of knowledge was essential in keeping every member of the development team adequately informed of the “big picture” of the system as a whole.
- Set up the infrastructure for automated building/integration and continuous unit testing, in line with current best-practice agile-based methodologies. This infrastructure enabled end-to-end integration testing that ensured that the code quality is maintained. Components used included :
 - Ant + Junit*
 - Anthill (integration server)*
 - PMD CPD (detecting any code duplication)*
 - EMMA (detecting code coverage of unit tests)*
 - Findbugs (detecting common coding mistakes)*
- Implemented a custom performance testing framework using *JUnit* to ensure that database performance remains consistent for different users. The database uses *Oracle VPD* to control access to data for specific users.
- Reviewed and refactored existing code based on best-practice design patterns and a test driven mindset. Consequently, the code-base became easier to test, validate against requirements, accommodate new features and maintain.
- Prototyped rich-client UI and business tier solutions using new technologies like *Google Web Toolkit*, *Flex* and *EJB3*. These

technologies were integrated to provide functional prototype systems to assist the development team in deciding the best possible technology to adopt for future projects.

J2EE Contract Developer

March 2006

Client

4LOOP

Responsibilities

- Implemented customer change requests for an existing J2EE application based on *JSP*, *Struts* and *EJB 2.x* technologies, running on *JBoss* application server and *Oracle* database. Modified Struts actions and entity EJBs to cater for new workflow/data.
- Created *Javascript* libraries to deliver a richer and more user-friendly user interface to complement standard browser controls. In addition, *Adobe Javascript* was implemented (via *iText* library) to interact with *Adobe Acrobat plugin* to perform scripted actions such as automatic printer selection. Care was taken to ensure that an alternative PDF download functionality was provided to browsers that lack the Adobe plugin.
- Developed a *Swing applet* to auto-detect printers on a client browser and communicate this information to the server.
- In addition to software development, also installed a new *Mandriva Linux* operating system for 4LOOP's development support server (configured RAID-1 mirrored hard-drives, CVS, Postfix, Samba, etc.) to improve security and reliability.

J2EE Consultant

October-December 2005

Client

4LOOP (for [BearingPoint](#))

Responsibilities

- Provided consultation services to support BearingPoint's developers in undertaking a large J2EE project for a major Australian corporation.
- Set up the infrastructure for automated building/integration and continuous unit testing, in line with current best-practice agile-based methodologies. This infrastructure enabled end-to-end integration testing that ensured that developers produced quality code. Components used included:

Ant

Anthill (integration server)

JUnit + extensions (see below), *DBUnit* (unit testing)

Checkstyle (enforcing consistent coding standards)

PMD CPD (detecting any code duplication)

EMMA (detecting code coverage of unit tests)

Daisy (Wiki for online collaboration)

CVS

The results from JUnit, Checkstyle, CPD and EMMA were automatically emailed to developers so that problems were made visible.

- Developed a sample J2EE application to serve as a reference implementation for BearingPoint's developers. This sample application illustrated all the major components of the actual production system, consisting of:
 1. Web tier using *Struts 1.2*, *JSTL*, *JSP/ CSS/ XHTML/ Javascript* and *iText*.
 2. Application tier using *Session EJBs* and *Hibernate*. *XDoclet* was used to tie everything together.
 3. Database tier with *Oracle 9i*.
 4. The application was deployed on *WebLogic 8.1* application server.
- Automated the creation of *Hibernate* POJOs from database schema using *Middlegen* and *hbm2java*.
- Developed frameworks to support various types of unit tests:
 1. *JUnit* remote test clients for testing session EJBs.
 2. *StrutsTestCase* (mock objects approach) for testing Struts actions
 3. *Canoo WebTest* for testing the final Web UI.
 4. *Web Service* mock providers to test Web Service (SOAP) interfaces.
 5. *JMS* mock consumers and producers to test messaging interfaces (over TIBCO EMS).
- Solved problems with the usage of Hibernate, such as serialization of Hibernate POJOs with lazy-loaded relationships over the remote interfaces of session EJBs.
- Developed a *Swing* applet that printed PDFs from file or URL using *Smart JPrint*. The applet provided features such as auto-printer detection and tray selection.
- Provided mentoring and code review services to other developers to ensure that various J2EE technologies and design patterns are applied properly.

OLDER WORK EXPERIENCE

2005 - 2007	: Open source JavaEE Web application developer
Aug 2005 - Oct 2005	: Casual Tutor for Faculty of Engineering, RMIT
Feb 2005 - Mar 2005	: Casual Developer for Faculty of Engineering, RMIT
Mar 2004 - Oct 2005	: J2EE Developer (Contract) for 4LOOP.
Feb 2004	: J2EE Developer (Contract) for Internet Business Systems.
Oct 2003 - Jan 2004	: J2EE System Architect (Contract) for 4LOOP.
Apr 2003 - Oct 2003	: J2EE Developer (Contract) for Space Time Research.
Feb 2003 - Mar 2003	: J2EE Consultant (Contract) for Internet Business Systems.
Feb 2002 - Jan 2003	: J2EE Developer (Contract) for Space Time Research.
Mar 2001 - Jun 2002	: Java Tutor (Contract) for Melbourne Institute of Technology.
Mar 2001 - Oct 2001	: Java Developer (Contract) for 4LOOP.
Oct 2000 - Mar 2001	: Software Engineer in Mainstream Computing.
Dec 1998 - Oct 2000	: Software Engineer in Space Time Research.
Sep 1997 - Dec 1998	: Systems Programmer in Swann Insurance (part of CGU).
Mar 1995 - Jun 1997	: Lecturer/Tutor/Demonstrator in Monash University.

OTHER PROJECTS

In addition to my main jobs, I have also undertaken the following IT activities:

- Designed and implemented *Molveolve*, a Java library for running a *Genetic Algorithm (GA)* to model the 3-dimensional structures of peptide chains from amino-acid sequences. Client code could specify its own peptide chain model, fitness functions and GA operations. This library was released under LGPL by my company ([CyberDemia Research & Services](#)). It was funded by the *School of Electrical and Computer Engineering, RMIT University* as a laboratory/tutorial program in biomedical applications. Please refer to the [Molveolve project page](#) for details.
- Setting up and maintaining a *Linux* (Mandrake 9.1) server for a small accounting company (*Burman & Co. Pty Ltd*). This involves setting up an *ADSL* connection, configuring the *firewall, router, DHCP server, SSH, WINE* and Intranet file/printer sharing with office desktops using *Samba*. The main tax/accounting package (*HandiSoft*) is installed on the server and synchronized with remote desktop/laptop clients using *rsync* over the internet. Remote login (for administration) is enabled using *SSH*. The server is also scheduled using *BASH scripts* and *cron* to perform routine automatic backups of important business data to be burned onto CDs.
- Designed and implemented *WebPBC*, a financial Web-application for doing budget/expense consolidation. This was implemented using *J2EE* server-side technologies and released under GPL by my company ([CyberDemia Research & Services](#)). *WebPBC* had been deployed and used to perform budgeting by [Confederation of Australian Motor Sport Ltd \(CAMS\)](#), a company with branches nationwide.
- Mentored a RMIT Computer Systems Engineering student in his Software Development project. It involved the development of a J2EE Content Management system for RMIT, with heavy emphasis on proper development methodology and architectural design.
- Developed the Web site for the *Humanist Society of Victoria* using *XHTML, CSS, JavaScript*
<http://www.vicnet.net.au/~humanist>

ACADEMIC ACHIEVEMENTS

IT certifications :

- Comptia Linux+
- Sun Certified Business Component Developer for Java 2 Platform, Enterprise Edition 1.3
- Sun Certified Programmer for Java 2 Platform 1.4

Tertiary qualification :

- Bachelor of Engineering (Electrical & Computing)
(1st Class Honours), Monash University, 1994.
(Complete academic transcript will be provided on request.)

Postgraduate qualification :

- PhD (Electrical & Computer Systems Engineering)
Monash University, 2003.
Thesis title: *Application of a Genetic Algorithm for prediction of tertiary structures of peptide chains*

Awards :

- Australian Postgraduate Award (APA), 1995-1997
- Caulfield School of Engineering Excellence Award, 1995
- IREE Student Prize (Division 1) 1995
(For final year project; a GUI to display 3-D models of protein molecules)
- IEAust IAN LANGLANDS Medal 1995
(Most outstanding graduate in the Caulfield School of Engineering)

SKILLS & INTERESTS

Computing skills :

- Many years of commercial experience in various real-world business applications primarily using *Java*. Had gone through the full *Software Development Life Cycle (SDLC)*.
- Experience in the design and implementation of dynamic Web-based applications using *Web 2.0* rich-client (*jQuery*, *GWT* & *DWR*), *Ruby on Rails*, *Java EE* server-side (*EJB*, *Struts*, *JSF*, *Hibernate* & *Servlet/JSP*) and *XML (DOM)* technologies.
- Team leading and mentoring experience using *agile methodologies* that helped form cohesive teams, delivered working software to the customers and maintained the flexibility to adopt to changing business requirements.
- Experience in setting up the various systems required to support the development of J2EE applications using agile methodologies, such as *Apache* Web server, *Tomcat/WebLogic/JBoss* application servers, *MySQL/Oracle* databases, automated integration systems (*Anthill*), unit testing frameworks, collaboration systems (Wikis) and quality control metrics reporting tools.
- Certified to install and administer *Linux* servers for Java and Web development.
- Experience in development and maintenance of Web pages using *HTML*, *XHTML*, *XML*, *CSS* and *JavaScript*.
- Experience with various other *Java* technologies such as *Swing*, *JavaMail*, *Ant*, *JUnit*, *iText*, *XDoclet*, *Java Cryptography Extension*, etc.
- Familiarity with mathematical modeling/optimization methods, e.g. Genetic Algorithms
- **Most importantly**, ability to learn and adapt quickly to clients' environment and requirements.

Other skills :

- Good communication skills based on experience from tutoring, mentoring, lecturing & conference presentations.
- Ability to work either alone or as part of a team (preferred).

Personal Interests :

- Computer programming, Web surfing & computer games.
- Astronomy, natural history, space exploration & science fiction.
- History & world affairs.

Personal Aspirations :

- To use my passion for computers and software to do something creative and exciting with my life.
- To promote the adoption of open-source software for the benefit of society, such as bridging the IT gap and helping to ensure that fundamental computing knowledge remains open to all.
- To build up a successful career as professional software engineer.

PROFESSIONAL ASSOCIATIONS

- Institute of Engineers Australia (IEAust)
- Australian Computer Society (ACS)

REFERENCES

- Alp Alim
Director
4Loop Pty Ltd
Tel : 0411 726 038

- Alexey Reznikov
Ex-colleague
Tel : 0425 723 957