

Curriculum Vitae for Mr Adam Buckley

Email: cv@adambuckley.net

Date of birth: 1974 (41 years old)

Qualifications: BSc (hons) Computer Science, MSc Music Technology

Profile

I am a professional software engineer with over 13 years' commercial experience of web development, more recently moving into mobile & MVC apps. My expertise covers database design, security, fault-tolerance, build & deployment, server hardware, functional/load testing, J2EE, iOS, Android, MVC and browser apps.

I am ideally seeking employment within 30 minutes of postcode HX7, but would consider Leeds or Manchester if the circumstances are right.

Skill	Strength	Comments
Enterprise Java	Expert	13 years commercial experience
HTML/CSS	Expert	13 years commercial experience; good eye for structure and aesthetics
RDBMS	Strong	13 years commercial experience; 2 years academic training
Architecture	Strong	High volume 3-tier/n-tier J2EE webapps, data integrations and production hardware
JavaScript	Strong	4 years commercial experience; especially browser-side frameworks
Android	Strong	1 year commercial experience; see also freeware at https://play.google.com/store/apps/developer?id=Adam+Buckley
Unix	Strong	Linux kernel hacker!
Team-lead	Strong	5 years commercial experience as team leader, especially with outsourced teams
PHP/LAMP	Strong	3 commercial projects to date
iOS	Good	1 year commercial experience
C	Good	2 years academic, 2 years open source; experience of win32, Unix and OpenGL programming

Career History

Senior Software Engineer, NHS

Nov 2013 to Mar 2014, Calderdale Royal Hospital, Halifax, UK

Contracted by the NHS to maintain an in-house patient administration system. A major task here was to overhaul a component of the patient administration system which allowed medical professionals to create, edit and send documents. This task became very complex due to the volume of documents produced, and the mandate that users use Microsoft Word. Due to a lack of in-house expertise, this task also required me to troubleshoot networking and infrastructure issues as well as providing advice on production deployment configurations.

A secondary task was to maintain a LAMP web application used to by GPs to track patient results.

Products used: InterSystems Caché, InterSystems ObjectScript, Sencha Ext JS 2.x, VBScript, ActiveX Automation, JavaScript, PHP 4.x, CentOS Linux 6.3, MySQL 5.6, Apache HTTPD 2.x, Microsoft IIS 7.x

Lead Developer/R&D, Conexa

Feb 2010 to Oct 2013, teleworking from UK and on-site in Gujarat, India and Auckland, New Zealand

Client: BP, Brake Brothers (UK)

My third contract with Conexa (an e-commerce solutions provider based in Auckland, New Zealand). During this role, I coordinated development teams in the Auckland and Gujarat offices as well as visiting client sites in the UK as technical consultant. Coding highlights of this position included the following:

- **iPhone App**

I implemented Conexa's flagship online ordering product for the iPhone. The server-side component was a Spring 3 RESTful web service which invoked stored procedures of the existing database. The client-side component was a robust iOS application which featured: asynchronous image download; intelligent asynchronous server interaction; skinning support; JSON-based data access layer.

Products used: Xcode 3/4, Objective-C, SBJson, HTTPS, Spring MVC 3, Spring Security 3, Jackson 2, MyBatis 3, Tomcat 6, Mercurial

- **MVC Architecture**

I was responsible for researching and developing the next generation of Conexa's e-commerce software. The final proposition was a very modern technology stack which featured a Spring 3 RESTful web service and an Angular JS frontend. The proof-of-concept demonstrated the most awkward use case scenarios, including: displaying big data sets; hierarchical and expandable tree grids; auto-suggest fields; date pickers; server push; lightning-fast product searches using Solr (from the Apache Lucene project).

Products used: Spring MVC 3, Spring Security 3, Jackson 2, MyBatis 3, Google Angular JS, Twitter Bootstrap 2, Apache Solr 4, Sencha Ext JS 4, Atmosphere 2, WebSockets, jQuery 2, Underscore, Backbone, Require JS, Chaplin, Tomcat 7, Eclipse STS, Mercurial, Git

- **Integrations Management / Android App**

At peak usage, Conexa's systems were receiving many multi-gigabyte data feeds per day. The

integrations system used Microsoft SQL Server SSIS (and later DTS) to handle this logic, and wrote complete auditing information to a database. I wrote a GUI to this database using JavaServer Faces. This web app provided a comprehensive view of integrations history and could also perform actions such as resending files or stopping/starting integration channels.

Products used: JavaServer Faces 2.1, Tomcat 6, Facelets, jQuery, JPA, Hibernate 4, dom4j, XSLT

The web-based tool was so useful that I was asked to develop it as an Android app to be used by operations staff. The result was a standard Android app which interacted with a Spring 3 RESTful web service.

Products used: Tomcat 6, Spring MVC 3, Spring Security 3, Jackson 2, MyBatis 3, Android SDK (API level >= 10)

- **Testing / Monitoring**

I used Selenium to create functional tests for our Ajax-enabled web applications. Expanding upon this, I created a tool so that non-technical staff could submit scripts creating using Selenium IDE for Firefox. The scripts were run on a nightly basis to produce reports including screenshots of failures.

I also used a web-based load test service which orchestrated Amazon's cloud services to run the Selenium scripts x-thousand times concurrently. This service produces excellent reports and is able to include metrics on error rates (as each script is still a functional test). We also used a monitor service to run a simple Selenium script every 15 minutes, and alert operations staff when the result is erroneous.

Products used: Selenium 2, JavaScript, Apache JMeter 2, Neustar (formerly BrowserMob)

- **Image Processing**

Each product on Conexa's online ordering website has an image which is shown at a variety of resolutions. I implemented this by writing scripts which monitor an incoming FTP folder and publish an array of JPEGs to the front-end web servers.

Products used: VBScript, ImageMagick 6

Sabbatical Break

Nov 2008 to Jan 2010

A sabbatical break to study languages in North India. However... during this period, a local charity asked me to produce a website to showcase their (wholesale) products to retailers. The website uses the LAMP stack to generate a public website as well as a 'backend' site where staff can maintain the website text and details of their products. All code was written from scratch and could be described as a simple CMS system. <http://www.tcvcraft.org>

Products used: PHP 5, MySQL 5, HTML, CSS 3

An additional personal project was studying mathematics and OpenGL to develop simple 3D computer graphics demos with the intention of developing computer games at some point in the future.

<http://adambuckley.net/opengl>

Products used: OpenGL 1.1, CDT for Eclipse, C programming, Win32 API

Software Architect, Conexa

May 2008 to Oct 2008, Teleworking from UK and on-site in Gujarat, India

Client: Reliance Petroleum (India)

In this second contract with Conexa, I re-architected their e-commerce platform using modern technologies. The final solution was a JavaServer Faces application which included Seam, Facelets and RichFaces in the technology stack. The data access layer was initially EJB3/JPA, but was later replaced with custom code which called stored procedures within Microsoft SQL Server.

Towards the end of this contract, I was stationed at Cybage Software Pvt Ltd in Gujarat where I trained and managed a team of developers.

Products used: Java EE5, JBoss Seam 2, JBoss RichFaces 3, Ajax, Facelets, JavaServer Faces 1, CSS, HTML, EJB3, JPA/Hibernate, Microsoft SQL Server 2000/ 2008, Transact-SQL, Selenium, Tomcat 6

Freelance Web Projects

Jan 2008 to May 2008

I created a web site publishing solution where the user may work offline using a simple Java/Swing application. The application maintains the contents of their web site as an XML file and when the user chooses to publish the website, the XML file is committed to a server-side CVS repository and a script is triggered. The script performs a XSL transform which writes the updated HTML to the web server.

This tool has been used to create <http://www.pureview.co.nz> and <http://www.kayurlich.com>. The latter site integrates PayPal so that viewers may purchase products online.

Products used: XML, DTD, XSLT, XHTML, CSS, Java/Swing, CVS, xsltproc, JSch (Java SSH), Unix scripting

Consultant, IONA Technologies

Aug 2007 to Dec 2007, Leeds, UK

Client: British Telecom, National Health Service, EitCom (Ireland)

Contracted to document an Enterprise Service Bus (ESB) produced by IONA Technologies on behalf of British Telecom for the British National Health Service (NHS). The documentation was required for a stringent accreditation process, which would then permit the product to be deployed and thus connect to the NHS central database (known as 'The Spine').

The ESB was implemented using ServiceMix, an open-source implementation of the Java Business Integration (JBI) specification from Sun Microsystems. My role was to consult the project architects and developers in order to create a set of documents, ranging from a test strategy through to a detailed internal design.

The documents I produced were well-received and I was subsequently contracted to produce equivalent documentation for a related mobile application. This was a bespoke Windows Mobile 5.0 application which connected via 3G or WLAN networks to server-side services.

During this contract I also represented IONA Technologies at EirCom (Ireland's national telecom provider) in the capacity of a web security consultant. Specifically, I was required to harden a set of Apache HTTPD servers by scrutinizing the use of modules and removing all potential vulnerabilities from the configuration files.

Products used: Apache ServiceMix 3.2, WSDL, XML, XSLT, HL7 v3, Microsoft Word 2003, Microsoft Visio 2007, Eclipse, Subversion, Windows Mobile API 5.0, Apache HTTPD 2.0/2.2

Senior Java Developer, SalesTech

Nov 2006 to Feb 2007, Auckland, New Zealand

Client: FMG (New Zealand)

Contracted to analyse and design the billing component of a large insurance application used internally by FMG – a New Zealand based finance company. Most of my time was spent rigorously analysing requirements and other documentation in order to produce a scoping document which was then agreed with the client. I also developed software using a constraint-based rules engine called Selectica.

Products used: Groove, Microsoft Visio, Eclipse, Subversion, Selectica, HTML, JavaScript, Macromedia Dreamweaver CS2, Atlassian Jira

Lead Java Developer, Conexa

Apr 2005 to Nov 2006, Auckland, New Zealand

Client: BP, Castrol

My initial role at this service hosting company was to extend the functionality of a web-based procurement system called CommerceOne. This task involved writing a great deal of JSP and Microsoft Transact-SQL code. As the company was new to software development I instigated the use of version control software, an ant build structure and a build & release process.

My second role at Conexa was to design and implement the user-facing component of an online invoicing system for Air BP (the division of BP specialising in airline fuel). The system sourced data from large XML files and presented it for viewing via a JavaServer Faces application. One mandate was that the user experience was highly responsive – so using a combination of optimised database lookups and lean HTML code I was very happy to achieve sub-second response times across the global.

Products used: Java 1.4, CommerceOne Procurement, JSP, custom tags, HTML, JavaScript, JDBC, Microsoft SQL Server 2000, Transact SQL, JAX/RPC WebServices, Apache Axis 2, Servlets, Tomcat 5, JavaServer Faces v1, BizTalk Server 2004, XML, XSD, Foundry Networks ServerIron Switch & Web Accelerator

Senior Java Developer, Orion Systems International

Jun 2004 to Dec 2004, Auckland, New Zealand

Client: New South Wales Department of Health (Australia)

I was brought in at the start of a new project to analyse, design and implement an Enterprise Master Patient Index (EMPI). Such a system maintains a database of healthcare patients sourced from a set of client database systems using the HL7 messaging standard. The source systems often held erroneous or conflicting data and the use of fuzzy name and address matching software enabled the EMPI to 'cleanse' the data, spot duplicates and maintain an authoritative version of a patient's record.

Products used: Java 1.4, Identity Systems ISS, Microsoft SQL Server 2000, HL7 v2.4, Hibernate, Apache Struts, Subversion, Atlassian Jira

Java Developer, Hewlett-Packard

July 2002 to Sep 2003, Amsterdam, The Netherlands

Contracted to design, implement and document a sample application which demonstrates features of the HP OpenView application server. The example application and source code are used as part of the OpenView SDK, aimed at HP-internal developers who are required to build OpenView applications.

The second contract at HP OpenView was to design and implement a system to automatically build, test and package the (large and complex) OpenView application server. A set of test runs were executed nightly using a combination of computing platforms and versions of the product.

Other highlights of this position included: giving teleconference presentations on OpenView software architecture; travel to other HP sites to train staff; writing an OpenView developers' tutorial (which received much praise for its entertaining style); mentoring new developers

Products used: Java 1.4, Oracle 8i, Rational ClearCase, Microsoft Visio, UML, Ant, Perl, HTML, JUnit, Windows 2000, Linux, HP-UX, Sun Solaris, XSLT

Open-Source Development

Jan 2002 to June 2002

Founded 'Doors', an open-source groupware solution for electronic musicians. This is a self-motivated follow-up of my postgraduate degree in Music Technology. A portion of the code I wrote is promoted by the Internet Systems Consortium (ISC) as a Java NTP implementation – a technology used for clock synchronisation (see <http://support.ntp.org/bin/view/Support/JavaSntpClient>). Full details of the project are at <http://doors.sourceforge.net>

Products used: Java/Swing, C programming for Linux & Win32, XML (JAXP, JDOM), CORBA (JavaIDL, ORBit 0.5), MIDI (OSS/Free for Linux, MCI for Win32), NTP, URL protocols (cURL), Win32/pthreads for multi-threaded C programming.

Java Developer, MGM EDV Beratung GmbH

May 2001 to Dec 2001, Munich, Germany

Client: Compaq

Contracted by this software house to simplify an overly-complex price listing tool which had been custom built for Compaq. The solution was to design and document a Java/Swing user interface 'shell'. The actual UI executable modules were stored on a database as Java bytecode, which was dynamically downloaded at login time according to user privileges.

Products used: Java 1.3, JDBC, JBuilder, Tomcat, Netbeans IDE

Java Developer, Meteor Communications Inc.

Jan 2000 to Mar 2001, Munich, Germany

Employed as a J2EE/CORBA developer for this web-based conferencing company. My principle role was to develop the message-passing middleware – implemented in Java 1.1 applets and servlets which sent serialized objects over HTTP.

Products used: Netscape Enterprise Server 3.6, Allaire JRunPro 2.3, Inprise VisiBroker 3.4, Java 1.1, JavaScript, LiveConnect, Cookies, HTTP 1.0/1.1, CVS

Education

MSc Music Technology

Oct 1998 to Sep 1999, The University of York, UK

I studied modules in MIDI, DSP programming, electronics, acoustics, digital audio, electronic music composition and studio recording. I also designed and constructed novel computer-based musical instruments and multimedia installations.

My thesis was to write CORBA wrappers for distributed multimedia output devices using Inprise VisiBroker for Java and C++ under Win32 and Silicon Graphics IRIX. I gained hands-on experience of IO streams, sockets, datagrams, Java RMI, Java IDL, Java2D, JavaSound, Java Native Interface (JNI) and multithreaded applications.

BSc (hons) Computer Science

Sep 1994 to Jun 1997, The University of Manchester, UK

I studied modules in networking protocols, distributed computing, database architecture & design, object-orientated programming, computer graphics, C and SML. My thesis was an infrastructure design for electronic music groupware which was later developed as an open-source project (see <http://doors.sourceforge.net>).

Jan 1996 to Jun 1996, The University of Lund, Sweden

A university exchange programme where I studied user interfaces and management information systems. I also created a web site development methodology and used it to build the departmental web site.

Other Interests

Mountain Biking // [Deep House Music](#) // [Battlezone II](#) // [Cooking](#) // [Classic Rock Music](#) // [Buddhism](#) // Home Automation

I can speak Tibetan, German and Portuguese. References available upon request.