**Peter Hawkins**

Broadlands, VA 20148

*Email:* peterhawkins@yahoo.com

*URL:* http://buzzrocket.com

**Professional Objective**

Excellence in enterprise computing.

**Technologies/Skills**

AJAX, AOP, AWS, Acegi, ActiveMQ, Activiti, Agile, AngularJS, Ant, Apache HTTP Server, AppDynamics, Axis, BASIC, Bamboo, Bash, Bootstrap, C/C++, COM, CSS, ClearCase, ClearQuest, Clustering, Code Reviews, Confluence, Cucumber, DHTML, DOM, Debugging, EJB, ETL, Eclipse, ElasticSearch, Entrust, ExtJS, Fisheye, Git, Gradle, Grails, Groovy, HTML, Hibernate, IntelliJ, J2EE, JAAS, JAI, JAX-RPC, JAX-RS, JAXB, JBoss, JDBC, JDO, JDOM, JMS, JMX, JMeter, JNDI, JNI, JNLP, JPA, JQuery, JSP, JSSE, JTA, JUnit, JVM Tuning, JXTA, Java, JavaScript, Javassist, Jenkins, Jira, Kafka, Keycloak, Kibana, Kubernetes, LDAP, MS Exchange, MVC, Maven, Mockito, MongoDB, Morphia, ODBMS, OSGi, OWF, OpenShift, PKI, Perforce, PostgreSQL, Pushlets, Python, RBAC, RDBMS, RDF, REST, RMI, RSS, RUP, Rails, Rational, Refactoring, RoR, Ruby, SAAJ, SOA, SOAP, SQL, SSL, Security, Semantic Web, Sencha, Sinatra, Spotfire, Spring, Struts, Swing, Tivoli, Tomcat, TruePass, UDDI, UML, Unix, VB, VI, Velocity, Virgo, Visual Basic, VisualVM, WSDL, WebSEAL, WebSphere, Weblogic, WildFly, XDoclet, XDoclet, XML, XPath, XSD, XSLT, YAML.

**Employment History**

**Principal Engineer**

*e-Sci Corporation*

*August 2015–November 2023*

Tech Lead and full-stack developer at the DIA.

*Achievements:*

• Tech Lead and full-stack developer at the DIA.

• Diagnosed critical production downtime issues.

• Mentored junior developers and participated in lead discussions. Reviewed code and approved Pull Requests. • Architected application framework designed to enable rapid development of apps featuring: model-driven, AngularJS/Bootstrap form generation, validation, export, instant classification banner updating, workflow, hybrid design JPA/Hibernate PostgreSQL DB storage, etc. This framework became the basis for several apps and saved much time and development money.

• Interfaced with Machine Learning tool for form field recommendations.

• Deployed applications on Kubernetes using OpenShift.

• Analyzed performance and recommended optimizations using JMeter and AppDynamics.

• Engineered a modernization effort for a DIA project with PL4 security. Wrote scripts in Bash, Ruby and Python. Scripted WebLogic domain installation and PKI.

• Upgraded and configured Jenkins for testing using Jenkins API with Ruby client. Fixed tests and improved testing framework.

• Made modifications to legacy Java applications and fixed bugs.

• Performed LDOM configuration on Solaris.

• Helped configure/troubleshoot Solaris trusted extensions and network configuration.

• Migrated several Java applications to Maven projects and to Spring Boot microservices.

• Integrated applications with AWS GovCloud, MS Exchange, Activiti workflows, Kafka messaging, Keycloak authentication, and Ozone Widget Framework (OWF).

• Wrote numerous Confluence how-to pages.

**Software Engineer**

*Agilex*

*May 2014–August 2015*

Developed a monitoring UI to display real-time graphs and various statistics from ElasticSearch using Sinatra and ExtJS for the Veterans Health Information Systems and Technology Architecture (VistA). Performance team technical lead.

*Achievements:*

• Developed system and process monitoring infrastructure in Ruby.

• Wrote performance test suite in Ruby to run Cucumber/Selenium tests concurrently for desired load. • Engineered Kibana dashboard generation for performance monitoring.

Peter Hawkins - Résumé - page 1

• Developed a cloud management UI using Sinatra for the FDA supporting automated AWS infrastructure deployment using Jenkins, Chef, Vagrant and Ruby.

**Software Engineer**

*New River Systems*

*August 2012–May 2014*

Built a tasking application for the DIA's Defense Combating Terrorism Center (DCTC) using Ruby on Rails, Git for CM, as well as other Agile tools: Bamboo, Fisheye, Jira, Confluence, etc.

*Achievements:*

• Participated in initial tasking application development using Groovy, Grails, MongoDB, Morphia, and JQuery. • Developed faceted search capability using ElasticSearch featuring CAPCO classification filtering. • Developed a reusable Rails Gem for attaching files from the shared repository.

• Established PKI CA hierarchy and perimeter authentication using Apache coupled with Spring security.

**User Interface Technical Lead**

*Blue Canopy*

*September 2010–August 2012*

Served as UI team lead on the ISR Decision Support Program (IDSP). Used the ExtJS 4 JavaScript framework and Spring + OSGi in the Eclipse Virgo server environment. Participated in an Agile process with Maven for building, Git for CM, as well as Atlassian tools.

*Achievements:*

• Developed a widget environment (similar to Ozone) for searching and browsing Intelligence, Surveillance, and Reconnaissance (ISR) data from several disparate sources for the DIA.

• Developed workbench drag-and-drop layout similar to Eclipse IDE for ExtJS.

• Developed mobile interface using Sencha Touch as well as a primitive browser interface (IE7).

• Implemented concurrent query processing with thread pooling.

• Integrated TIBCO Spotfire reports as widgets.

**Senior Software Engineer**

*Knowledge Consulting Group*

*January 2007–December 2010*

Senior software/systems engineer key to FBI Sentinel systems integration, performance tuning, troubleshooting, and development. Added COTS integration/development responsibilities: Tivoli Access Manager for e-business, WebSEAL, WebSphere Application Server, WebSphere Portal. Assisted in: JVM tuning, diagnosing memory leaks, architecture planning, profiling, network issues, and investigation of run-time problems. Used Spring MVC framework with Tiles and Acegi security.

*Achievements:*

• Designed and implemented Single Sign On (SSO) smart-card authentication using Entrust TruePass integrated with WebSEAL and FBI PKI.

• Rewrote Java Struts-based external authentication application for WebSEAL to provide a robust login experience, later rewrote Sentinel login page in ExtJS.

• Wrote several complex JS widgets using ExtJS framework used on forms that perform LDAP searching and lookups. • Wrote common Java components: web service client JAR build system, and a run-time configuration utility. Rewrote build files.

• Developed a group management application in ExtJS used in functional access control.

• Wrote LDAP integration API used throughout Sentinel.

• Migrated several stand alone WebSphere environments to clustered Network Deployment configuration.

**Senior Software Engineer**

*TechUSA*

*July 2006–December 2006*

Served as software engineer and system integration researcher for the Information Assurance Technology Infusion (IATI) program of the Federal Bureau of Investigation (FBI). Authored and co-authored reports of findings.

*Achievements:*

• Integrated Entrust TruePass smart card (Public Key Infrastructure) PKI, Apache Web Server, and WebSphere Portal for a Reduced Sign On (RSO) prototype for the FBI's Security Division (SecD) in support of the Sentinel program by providing smart card access control to mission critical web-based applications.

• Developed a dynamic, data driven, Computer Based Training (CBT) system for the Integrity enterprise content filtering software using XSLT and JavaScript.

Peter Hawkins - Résumé - page 2

**Senior Software Engineer**

*Northrop Grumman IT*

*March 2006–July 2006*

Functioned as IRAD support to refactor and productize InFlowSuite core component. Responsibilities/goals include: adding web services, adding Hibernate for persistence, adding Spring for implementing aspects and container services, decoupling and separation of concerns, container independence, modernize web layer to Spring MVC, update build process to include automated testing and generation of model-driven artifacts, create tag libraries.

**Alert Team Lead**

*Northrop Grumman Mission Systems*

*November 2003–March 2006*

Served as alert team lead working on Horizontal Fusion, a DIA initiative. Performed dependency analysis, code and build refactoring. Delivered design documentation, gave presentations.

*Achievements:*

• Migrated legacy J2EE alert services to a Spring-Hibernate based, cluster-able, modular core enterprise service, with Pushlets, Spring MVC, Rome RSS, Acegi security, and ActiveMQ JMS.

• Developed code generation system to build web services using session bean end points.

• Added RSS publishing capability, client XML caching, Servlet filtering for restricted access, dynamic delegation proxy factory.

• Developed build system for J2EE components on Weblogic and JBoss platforms.

**Senior Software Engineer**

*Jacobs Sverdrup Advanced Systems Group, Inc.*

*December 2001–November 2003*

Led web service development team for Disaster Management Interoperability Services (DMIS), a DHS project. Led transition to J2EE architecture. Participated in DisasterHelp.gov development effort, an enterprise portal for FEMA. Produced various design artifacts and developed prototypes in Java and .NET. Performed assorted software engineering duties including configuration management, metrics, refactoring and code reviews.

*Achievements:*

• Implemented JAX-RPC web service API for interoperability among various commercial emergency management systems.

• Participated in OASIS Emergency Management technical committee design of standard schemas (EM-XML). • Performed analysis of Voter News Service (VNS) software architecture before 2002 midterm elections.

**Software Engineer**

*Ubizen, Inc.*

*June 1998–September 2001*

Served as software engineer on a government project, then transitioned to several commercial projects.

*Achievements:*

• Developed JPMorgan Firewall Software Procurement System, an Enterprise Java Bean (EJB) ands JSP based web application on Weblogic Server featuring: logging, document workflow, RBAC, dynamic navigation, popup menus, email messaging, DHTML etc.

• Completed MasterCard International's Site Data Protection Service using JSPs and Cloudscape DB. • Developed an Intranet revenue tracking system for Bankrate.com using JSPs, and EJBs with MSSQL via JDBC. • Designed and developed the Joint Mission Space Resource Repository (JMSRR) infrastructure for the Joint Simulation

System (JSIMS). The JMSRR network includes application, content, and database servers used to retrieve simulation data for the joint military. Developed agent-broker architecture in Java using VisualAge IDE, ObjectStore OO databases, and RMI to Voyager ORBs. Other features include: responsive querying, efficient concurrent transaction control, applets, thread pooling, resource caching, and transferring files between remote peers.

**Developer**

*Altrx, Inc.*

*1997–1998*

Evolved large C program for bar-code readers to provide generic data collection. Features include sub-program parsing, data validation and scrolling menus. Wrote an Active-X data collection component for warehouse systems using Visual Basic 5.0. Utilized wireless LAN technology for client-server TCP/IP Socket communications between PC and barcode readers in real time. Assisted in Component Object Model (COM) design and development. Formulated robust serial

communications for batch (non-RF) data collection. Improved asset-tracking system for Northrop-Grumman in Access. Wrote well tracking system for Parsons-Brinckerhoff, and data collection systems for Allied Signal and others.

Peter Hawkins - Résumé - page 3

**Developer**

*Bamberg-Handley, Inc.*

*1994–1995*

Employed as software developer using Visual C++ and Visual Basic on Windows 3.1, Windows NT, and DOS platforms. Wrote audience estimation systems for TV and radio. Analyzed geographic data to produce data maps. Produced estimates and probability calculations for in-house Plus-4 zip code database. Developed various utilities for marketing analysis and mapping software. Worked with others to produce business and consumer data (Dunn and Bradstreet) search engine used in banking software. Utilized simulated annealing to solve complex systems of equations. Wrote logical database compression software for CD releases.

**Programmer**

*Wilson, Miller, Barton, Soll, and Peek, Inc.*

*1982–1984*

Wrote and maintained database software (in BASIC) for IBM PC sand Digital multi-user systems. Wrote point of sale transaction inventory systems with graphic analysis utilities. Developed interface for optical mark reader. Worked on project management systems. Assisted technically in the field and in software support.

**Education**

**Bachelor of Science in Computer Science**, May 1998

University of Central Florida

**Associate of Arts**, 1995

Valencia Community College

**Hobbies**

• Music. Currently drumming, adding background vocals, and sound engineering in several bands. • Physics, Cosmology

Copyright © 2024 by Peter Hawkins.

All rights reserved.

Peter Hawkins - Résumé - page 4