

# Jacob Robertson

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Twenty-one years professional experience in  
**Technical Leadership, Solutions Architecture**  
**Dev/Ops Architecture, Software Security and Software Development.**

## Overview

### Technical Leadership

- Communicates effectively to IT development teams, for example through architectural decisions, technology directives, and technical design documents
- Major contributor to training programs, educational materials, and live presentations for development teams
- Developed the vision and processes to rollout multiple technology initiatives across whole organizations
- Proficient with all SDLC functions and artifacts such as requirements, use cases, sequence diagrams
- Experienced with project planning and being Scrum Master, including task prioritization and assignments
- Developed multiple common frameworks, reference frameworks, and process improvements
- Mentored many architects and developers
- Significant contributor to and participant in the process for screening and interviewing technical candidates

### Solutions Architecture

- Develops architecture solutions by analyzing existing systems and processes, working with technical and business teams, and determining prioritization and recommended phases
- Aligns architecture solutions with IT management's strategic goals, and collaborates with enterprise architecture teams
- Delivers architecture solutions through architecture diagrams and documents, and baseline implementations
- Communicates effectively to IT and business management through roadmaps, scope/phase planning, vision, and executive summary documents

### Dev/Ops Architecture

- Architect and Technical Lead of JBoss Migration, including automated deployment capabilities
- Technical Team Lead responsible for defining, implementing and rolling out a new continuous integration process across an organization, including a complete Maven, Nexus and Jenkins stack

### Software Security

- Created the architecture, patterns and initial implementation of a security framework to access pre-existing security capabilities through Spring Security APIs
- Developed toolsets to integrate Rational AppScan Source Edition into continuous integration, including authoring Maven and Jenkins plugins
- Authored a highly-rated 4 hour online training course for Application Security, to be taken by all FSA developers
- Co-presented at IBM Rational Innovate 2012 - Security Scanning with Continuous Integration
- Charter member of the Software Security Group at FSA to continually improve security scanning capabilities
- Performed Build Security In Maturity Model (BSIMM) analysis and alignment
- Analyzed the security of a legacy application, discovered serious security flaws, and designed and built a lightweight security framework that could be easily adopted within the existing code base

## Software Development / Technical Background

### Certifications Achieved *(current and expired)*

- Oracle Certified Master, Java Enterprise Architect (OCMJEA) (12/8/2016)
- GIAC Certified GSSP/Java Professional (GIAC Secure Software Programmer, 2/4/2011)
- Agile Methodology, Certified Scrum Master (12/18/2009)
- Certified SAFe (Scaled Agile Framework) Practitioner (12/2020)
- Sun Certified Java Developer (9/30/2003), Sun Certified Java Programmer (3/21/2001)

### Open Source Software Contributor

- Jenkins/Hudson - contributor to core, author/maintainer of 3 popular plugins (view-job-filters, compact-columns, configuration-slicing)
- Next Generation Testing (TestNG) - contributed examples to the published TestNG book
- Contributor to Maven, DbUnit, Hibernate

### Development Technologies

- **Web** - Spring MVC, Struts, Tapestry, JSP, Servlets, AJAX, JavaScript, JSON, HTML, CSS
- **Services** - Web Services (XFire/CXF, Axis, SOAP, WS Security, JAX-WS), JMS/MDB, EJB2, EJB3
- **Data Access** - Spring JDBC, Hibernate, JDBC, SQL, HSQLDB, Derby
- **Testing** - JUnit, TestNG, DbUnit, Easy Mock, Mockito
- **Continuous Integration** - Maven, Jenkins/Hudson, Nexus, Cobertura, Emma

## EXPERIENCE

### Technical Director, Sohum Systems LLC

*(Mailing Address: 9232 W 143rd Terrace, Overland Park, KS 66221)*

Kansas City, Missouri — September 2020 - Current

As Technical Director for Sohum Systems, my responsibilities included technical management of our staff, mentoring of our Project Managers and Architects, Business Development, and Program Management of seven concurrent contracts. Highlights include

- Architecture Consulting for the USDA/FPAC Financial Services Section
- Agile Coaching for the USDA/FPAC Geospatial Data Management and Provisioning Section
- Proposal Management for Sohum proposal responses to US Departments of Agriculture and Transportation

## **Solutions Architect, Spring Venture Group**

*(Mailing Address: 120 W 12th St Ste 1700, Kansas City, MO 64105)*

Kansas City, Missouri — July 2018 - September 2020

As Solutions Architect, I worked within the organization to advance both technical and business initiatives, including the following highlights.

- Worked with other Architects to kick off, design, and steer the Amazon Connect project to implement an outbound dialing solution on top of the existing Amazon Connect platform, and to integrate that solution with the company's services.
- Architect for the Smart Connect initiative which added new ways for marketing to seniors needing Medicare.
- Provided architectural leadership and mentoring for two engineering teams.
- Provided designs and consultations to ensure the success of complex business requests, such as call routing improvements, call reputation management, moving businesses onto new Salesforce platforms, and batch process improvements.
- Worked with engineering teams to ensure Sprint planning and execution went smoothly and embraced continual improvement.
- Teamed up with DevOps to design and implement improved pipelines for building, testing, reporting on, and deploying code to various environments within AWS, with a focus on using AWS capabilities such as Code Commit, Code Build and Code Pipelines.

## **Security Specialist Solutions Architect, VSolvit LLC**

*(Mailing Address: 4171 Market St #2, Ventura, CA 93003)*

Kansas City, Missouri — April 2015 - July 2018

Contracting as the Senior Solutions Architect on the USDA DFAD contract, I engaged with other Solutions Architects to analyze and implement common architecture and security strategies for JEE apps within the Administrative and Financial Applications Office. As Solutions Architect over applications such as the National Receipt and Receivables System (NRRS), Financial Inquiries, and the Accounting Transactions Control System (ATCS), I performed in critical roles including the following highlights

- A primary contributor to the AFAO Cloud Readiness Vision document, including a roadmap for increasing the adoption of service oriented architectures, and reduction of dependencies on mainframe technologies.
- Analyzed the security of NRRS, discovered serious security flaws, and designed and built a lightweight security framework that could be easily adopted within the existing code base.
- Created the technical design, plans, and prototypes to migrate NRRS from EJB2/singleton technology to EJB3/Spring-Framework technology.
- Authored and executed a plan to dramatically reduce the number of Data Change Requests being performed directly against the NRRS database. This led to increased integrity of financial data, and provided a springboard to perform numerous root cause analyses on why bad financial data was entering the system, followed up by bug fixes and enhancements to remediate these issues.
- Authored the vision document, phase planning, executive summaries and technical design documents for ATCS. Developed the initial frameworks and baseline implementation skeleton for the application. Lead the development team for architectural and technical concerns, including creating the task breakdown for

assignments.

- Architect and Technical Lead responsible for delivering a rewrite of the Financial Inquiries application, including coordinating new requirements and improved security.

### **Lead Software Architect, USDA/FSA Architecture Office**

Contractor with **SAIC** — Sept 2010 - April 2015 (*Mailing Address: 1710 SAIC Dr., McLean, VA, 22102*)

Contractor with **n-Link** — Sept 2008 - Sept 2010 (*Mailing Address: 550 NW Franklin Ave #308, Bend, OR, 97701*)

Contracting as the lead applications architect of the Architecture Office (AO), I was team lead over multiple teams. I provided vision, mentoring and technical leadership, and I worked hard to facilitate each team's success. The following are some of the highlights.

#### **Lead Applications Architect — 2008-2015**

In this role, I put in place common practices across the Architecture Office's contracting teams, and promoted a vision for all contractors with J2EE expertise to get involved in developing common solutions and recommendations to benefit the Application Development Center. These are some of the major accomplishments:

- Developed the Example Web reference project and the Example Shared Services reference project.
- Established the Architecture Office Backlog to help prioritize and track the successful development of common frameworks.
- Primary contributor and champion of the Wiki. This collaboration tool has proven invaluable in disseminating a large amount of information regarding tools and best practices that the AO has developed.
- Established a vision for the AO to successfully roll out technology initiatives such as Ounce Security Analysis, Common Web frameworks, WAS Automated Deployments, improved Eclipse/Maven integration, and Quality Reporting framework.
- Authored major portions of multiple "Information Bulletins", and developed a Common Web Diagnostic solution that allowed development teams to quickly comply with that particular bulletin.
- Presented to over 100 FSA contractors and developers, introducing the Automated Build and Test tools and processes.

#### **Program Management — 2011-2012**

- Managed a \$24 million dollar contract consisting of 20 people
- Performed all interviewing and hiring
- Reviewed and performed quality control on invoices
- Worked directly with government contracting officers to execute the contract
- Worked with subcontractor companies
- Managed all personnel on the contract including performance goals and reviews

#### **Team Lead and Senior Architect, Engagement Architecture Team — 2008-2015**

This team consists of Engagement Architects who are embedded on development teams, and take on a high level of accountability and responsibility within those teams. As team lead, I have provided leadership to Architects and Senior Architects who rely on my decision-making, mentoring, and conflict resolution skills. The following are highlights of my contributions to that team.

- Defined the vision of the engagement model.

- Mentored Engagement Architects in the FSA SDLC, Reference Architecture, and J2EE topics.
- Mentored these Architects in improving their communication skills, especially in helping them learn to navigate very challenging team situations.
- Ensured that each Engagement had milestones and deliverables, and that we could report our successes to upper management.

#### **Team Lead, Application Availability and Performance Lab — 2010-2011**

- As the Team Lead of these Performance Architects, my primary task has been to provide a vision for success, and to begin enacting that vision.
- My strategy rested on two main points
  - Re-defining the team vision in terms of the Architecture and Management Center's strategic goals, and how we could measure our progress in accomplishing those goals. This included defining the activities the team and government oversight felt would best support that measurable progress.
  - Managing the team's activities through the proven processes that I had put in place for other teams. This included using Architectural Engagements, Technology Initiatives with Milestones, Technology Implementation Checklists, and integrating with the Architecture Office Backlog.

#### **Senior Software Developer/Architect, Argus Health Systems, Inc.**

*(Mailing Address: 1300 Washington St, Kansas City, MO, 64105)*

Kansas City, Missouri — Dec 2001 - Sept 2008

Played a key role in architecture, design and implementation of multiple projects, including the following highlights.

#### **Project Lead, Architect and Developer, Java MVC Framework**

- Architected and developed a complete in-house Java MVC Framework customized to our needs.
- Metadata and Business Rules – Captured in XML, and made reusable for both model and view
- Data Persistence Abstraction – Eliminated use of SQL and allowed seamless switch to LDAP
- Html Components – Powerful set of Java View components that render as HTML/JavaScript
- Html Templating – Separates GUI design entirely from Java Code and business logic
- Common Framework – Increased productivity dramatically

#### **Project Lead, Architect and Developer, MyArgus Security Management**

- Architected and developed a suite of web-based tools for managing application security.
- MyArgus portal – a secure launching area providing users access to their authorized web applications
- Security Management Web GUI – highly customizable groups, roles, permissions and data filters
- Preferences – gives clients fine-grained control over co-branding applications for their end users
- Pass Through Authentication – end users create their own MyArgus accounts authenticated against existing member information, using a dynamic, customizable authentication wizard

#### **Technical Lead, Web Information Manager**

- Architected and developed a web-based workflow process, using J2EE technology, for managing reports and other information. Administrators from Argus, insurance companies, and manufacturers process

thousands of reports a year. The Web Information Manager automates the report verification process, allowing reports to be routed via the web in a customizable workflow.

## **Software Developer, Inovaware Systems Corporation**

*(Mailing Address: 1357 Kapiolani Blvd., Suite 1115, Honolulu, HI 96814)*

Honolulu, Hawaii — Jan 1999 - Dec 2001

Employed as a software developer at Inovaware Corporation in Honolulu, HI. Inovaware provides a flexible, comprehensive customer care and billing package for ISPs/ASPs and content providers.

### **Accomplishments**

- Architected and headed development of a real-time Java Rules Engine for dynamically assembling business rules
- Led a team in designing and implementing a Workflow Engine using Java, EJB, C++, CORBA, XML and JDBC. The system was deployed on the WebLogic Application Server
- Developed a real-time data Rating Engine
- Designed XML components of the above projects using XML-Schema, XSL, DTD
- Designed relational databases to define business logic behavior for the above projects
- Used JDBC and EJB Entity Beans for Oracle, MS SQL, and MS Access
- Implemented back-end process components of billing software
- Implemented GUI components

## **EDUCATION**

### **Brigham Young University of Hawaii**

BS Computer Science — 1999