## Resume

John Lockwood  
Charlotte, NC  
Phone: (919) 561-3806  
johnlockwood2999@gmail.com

## Summary

I am a results-driven, senior software developer with multiple AWS certifications as mere icing on the cake: over twenty years of professional software development experience in various languages. I have a proven track record of successful projects.

### Technologies / Tools / Certifications

* Languages include Java, Python, C++, C, JavaScript, some TypeScript, C#, Scala, Golang (Go), and others. Web technologies/frameworks include Django, Flask, Spring Boot, Spring, React and Redux, ES6, jQuery, and Vue.js. Batch and Bash Shell Scripting, HTML, CSS, XML, JSP, Struts.
* A strong practitioner of unit tests, I advocated and led their adoption in three of the environments where I have worked. I have worked in Junit, Nunit, TestNG, Jest, etc.
* [Amazon AWS Certified Developer – Associate](https://www.youracclaim.com/badges/b56c7dd0-8e0c-44b2-a5b9-8b39d8b3bc0d/public_url).
* [AWS Solutions Architect – Associate](https://www.youracclaim.com/badges/a67e4e73-0d48-4ad3-80ce-5152397d3375/public_url).
* An avid Python blogger, I publish [https://CodeSolid.com](https://CodeSolid.com/), which is currently experiencing some 340% month-on-month growth.
* Containers (esp. Docker & Kubernetes). DevOps tools including Terraform, CloudFormation, etc.
* Technical presentation on Scala for Java Programmers at the Sacramento Java User’s Group. See slides here: <https://github.com/CodeSolid/ScalaTalkSacjug>.
* Maven, Git, Gradle, Ant, Subversion. Jenkins and VSTS (Azure DevOps) build pipelines for reliable, continuous integration including configuration of automated unit test results.
* Databases and OS: Oracle, including complex queries and stored procedures in PL/SQL, MySQL, SQL Server, DB2, PostgreSQL. Transact SQL, Stored Procedures, Triggers, MongoDb.
* Windows, Linux (esp. Ubuntu, Redhat, Alpine, Centos), Unix, MacOS, Amazon AWS, Azure and Google Cloud.

## Experience

### 2021 Senior Cloud Consultant, Vertical Relevance

Provided a solution in Terraform for a pass-through load balancer (NLB), including the necessary IAM roles, S3 buckets, and policies, etc., and integrated it into an existing inspection VPC framework. Extensively reworked AWS-provided lambda function (Python) solution for registering and updating target groups on pass-through load balancers, refactoring code to make it more maintainable/testable and adding both fine-grained unit tests for business logic and heavily mocked “integration” tests enabling. Worked within a rigorous but ultimately work-delaying review framework, but was nevertheless able to deliver working code that is now widely used.

### 2020-2021 AWS Consulting Engineer, Hitachi Vantara

For this AWS Premier Consulting Partner, part of a team iterating on two microservices (both primarily in Python) for our largest client. One project targeted Lambda step functions, and the other was deployed to Kubernetes. On both projects, contributed enhancements to both the service code and the associated build and deployment tools and pipelines.

On the Kubernetes project, contributed both the initial service microservice code structure and the associated build tools as well as the Helm package code to streamline our Kubernetes deployments. Also led on several docker build optimizations, greatly reducing container size and reducing build times from nine minutes to forty-five seconds, while suggesting follow-on work that even further optimized our builds. Researched and documented the process for running and debugging our code and unit tests within the container so the team could be more productive. Mentored and assisted junior developers as needed on several stories.

### 2018-2020 Senior Software Engineer, Collins Aerospace

Created a Kubernetes proof of concept that I advocated for to modernize our legacy application stack (beginning with the application I develop). This consists of a Kubernetes Cluster (Azure Kubernetes Service) managed by Terraform, running a back end consisting of a Spring Boot and Redis application, with a front end running a react website on Nginx.

Originally hired to do full stack development on a Java / Spring Boot / Redis and React supply chain application which allows suppliers to confirm shipping dates of parts requested by manufacturing. While continuing to work on this, I volunteered to help rescue a failing reporting project, also on the supplier portal. On this project, I stepped in as a front-end developer. Developed the front end from scratch using React for the view layer, Redux for state management, and Recharts as a data visualization tool. Maintained build pipelines in Jenkins and stood up new ones in Azure DevOps.

### 2017-2018 Solutions Engineer at Hitachi Vantara / Pentaho

Created custom plug-ins in Java for customers of Pentaho Data Integration, aka Kettle. Solutions targeted a variety of platforms, including big data platforms, requiring validation on Hortonworks Data Platform (HDP), Cloudera, etc. Representative solutions included:

* A data lineage plug-in that consumed our proprietary graph data lineage data output in GraphML and transformed it for automated upload into IBM’s IGC. I delivered a proof of concept – scoped as a 2.5-week effort by another engineering team – in 1.5 weeks, which rescued an at-risk $750,000 engagement with a new customer.
* Customer samples and documentation on a variety of topics including integrating Kettle with Apache NiFi, Integrating with R and Python (Pandas).
* For our Python (CPython) plug-in, also contributed a variety of fixes to the project.

### 2017 Application Architect Bank of America (Contract)

Write data load services in Scala for migrating an existing database supporting Global Commercial Banking data from Oracle to an RDF (NoSQL) database, as well as services to support existing and new functionality for interacting with party account data to support the Global Financial Crimes Compliance division.

### 2015-2017 Senior Software Engineer, Samba Safety

As a Senior Java Developer, developed RESTful services for DMV Renewal, Shipping, and Billing. Also worked on a variety of full stack improvements to our team's core DMV transaction application. This was a JBoss application with a combination of EJBs and custom JDBC model classes on the back end, Java servlets and “action” classes at the controller layer, and JSPs with React, JQuery, and more “legacy” JavaScript on the front end.

I led the effort to move our product from an in-house network to a cloud-based solution (Amazon AWS). I also resolved many tech debt items while I was there such as automated build processes, moving from TFS to Git, and vastly improving our use and continuous integration of JUnit tests.

### 2014-2015: Software Engineer (Java), Eyefinity (VSP Global)

As a Java developer contributed new features and critical production fixes to a diverse portfolio of products and applications, including servlets exposing proprietary APIs, traditional WSDL-based Java services, and RESTful microservices written in Java Spring and Jersey.

A typical accomplishment was restoring two related automated jobs in Hibernate. Once the Hibernate failures that had prevented one job from running for the three years before I got there were corrected, I moved on to improve the performance of the second job by 1,250%.

I worked on a variety of J2EE servers including Resin, Tomcat, and JBoss. Databases included MySQL, and DB2. Technologies included traditional web services and microservices, JDBC, (Hibernate in some cases) Elasticsearch, Spring, and Java Servlets. Tools included Maven, Jenkins, SoapUI, JUnit, and Groovy.

### 2008-2014: Senior Software Engineer, Daegis (formerly Unify Corporation)

Lead developer of a new, fully managed (C#) ADO .NET data provider for our database product,

replacing a legacy hybrid driver consisting of a C# wrapper around our C API. Implemented the driver using Test Driven Development in NUnit, and as a result, in contrast to the old driver, which had a meager dozen or so unit tests driving it, our new driver sported close to 600 tests (and counting).

I also was charged with maintaining our "router layer” (a database API and a set of drivers targeting SQLBase, Oracle (OCI), ODBC, OLE DB, native Sybase, native Informix, and others as well as JDBC drivers written in Java.

Ported a WCF database proxy and developed a new WCF server in the process.

### 1997-2008: Principle, ParticleWave Software Development and Entrepreneur (Real Estate Broker)

Developed software for a variety of government and private sector clients as a contractor. Representative projects included:

***Lockwood Real Estate / The Real Estate PLUS Team (as owner / entrepreneur).*** Developed ten top-producing real estate websites. Some were initially developed in JSP / Tomcat and later ported to PHP. Created a MySQL database from MLS data that fed a variety of statistical reports. Created lead generation forms and other suitable content. Achieved dominant organic keyword placement for many competitive search terms, including “Sacramento Real Estate” and others. In 2005, the team closed over $10,000,000 in sales, generating approximately $270,000 in commission volume. The team attributes $240,000 of this to leads produced by websites I created.

***California Cancer Registry*:** Programmer on a complex N-tier project featuring JavaScript, ASP, SQL Server stored procedures (including SQL Server XML extensions), Delphi, and XSLT.

**Vision Service Plan**: Lead Java developer of Vision Service Plan's new Member Portal application, a major port plus rewrite. This MVC project was delivered on time under a tight deadline on which several third-party deliverables had slipped. Introduced JSPs into an existing legacy Java project. Led the research and deployment of a new servlet engine to improve runtime efficiency by 250%. Introduced JUnit automated unit tests to the company for the first time.

***Synergex*:** A variety of C++ and Java contracts, including RMI, Printing APIs, etc.

### 1993-1997: Additional Software Experience

***1996-1997 Synergex International, Lead Programmer****:* Windows programming in C using Visual C++ for the Synergy Windows toolkit.

***1994-1996 The Windward Group, Senior Software Engineer:*** Delivered a variety of features for FedEx Ship (in Visual C++), including classes for online registration, a Universal Thunk subsystem for accessing 16-bit Windows Communications APIs from WIN32, etc. On Apple's QuickTime for Windows, designed and implemented the self-extracting installation system written entirely in Visual C++ (MFC).

***1993-1994 Borland International, Technical Support Engineer:*** Provided paid technical support on the Windows Advisor Line for Windows programming using Borland C++. Assisted customers in troubleshooting thorny technical issues related to our C++ compiler, our IDE products, and Windows programming.

### Education

* Master of Arts, Indiana University, History and Philosophy of Science.