

# James Kolean

## Experience Summary:

Mr. Kolean has thirty years experience in software systems development. His roles include systems architect, team lead, and developer implementing a wide array of technologies such as Java, React, Flex, Messaging, Service Oriented Architectures, and Rule Based Systems. Mr. Kolean has successfully implemented system for a wide variety of business domains from Telephony to Vehicle Diagnostics to Oil Spill Cleanup enabling him to create solutions tailored to the unique concerns of each customer. He has proven himself an able architect designing flexible, maintainable, scalable systems that leverage the power of best practices, design patterns, and open source tools as appropriate. Mr. Kolean is a solid team player and an excellent mentor.

## Education:

Master of Science degree in Electrical Engineering from the University of Southern California in Los Angeles, California

Bachelor of Science degree in Electrical Engineering from the Michigan Technological University in Houghton, Michigan.

## Recently Used Tools and Languages:

Java, JPA, Spring Boot, Spring Security, Spring Batch, Camel, ActiveMQ, Solr, ElasticSearch, Liquibase, Mockito, JMeter, Jenkins, Gradle, Maven

Java Script, NodeJs, AWS, React, Netlify, CloudFlare, GatsbyJS, Headless CMS, SnipCart, Shopify

Oracle, MongoDB, MySQL

## Memberships and Affiliations:

AWS Certified Solutions Architect  
Sun Certified Java Architect  
Sun Certified Java Developer  
Sun Certified Java Programmer

## Digital Garden

<https://jameskolean.tech>

## Repositories

GitHub <https://github.com/jameskolean>  
GitLab <https://gitlab.com/jameskolean>

## Professional Experience

*Guardian Industries AWS migration*

*Code Green LLC*

*November 2019 to Present*

- Leading architecture and development of a GraphQL service wrapper around a custom JEE Enterprise Resource Planning platform. The GraphQL wrapper will be used to implement a new modular User Interface built with React.
- Coaching React developers.

- Developed a JAMStack proposal and Proof of Concept for Guardian to replace their Web platform with something more secure, provides better developer experience and is cheaper to develop and maintain.

**Nohingo**

**Code Green LLC**

**August 2019 to November 2019**

- Exploring JAMStack, a passion of mine that I believe will change to way we do application development.
- Built a business case for the architecture that is available on request.
- Built Proof of Concepts that are available on request.

**Ally**

**Team Lead**

**March 2019 to August 2019**

- Rescued troubled project. The project had been running for several years and suffered multiple failures. I started by evaluating and refactoring the existing Spring Boot microservices making the following additions and changes so my team could start delivering features efficiently;
  - I added a PhysicalNamingStrategy eliminating the need to add Entity Annotations and enforcing code consistency.
  - I added Spring DevTools, Liquibase, and H2 speeding local development.
  - I integrated Swagger-UI into all services enabling clients to discover and test the APIs.
  - I added MapStruct for Entity to Data Transport Object mapping.
  - I reviewed all POMs removing unneeded and unused dependencies.
  - I added Squiggly filter to the REST APIs, allowing the clients to limit the response.
  - I added Spring Boot Actuator initially for Health Checks and live logging level changes.
  - I refactored Unit Test runtime from dozens of minutes to seconds.
- Aside from the technical aspect of the assignment, I fixed the Team's Agile Development Process, so we consistently delivered on our sprint promises. My team was the first of 7 teams over three years to track our story delivery to the burn-down.

**Guardian Industries**

**Code Green LLC**

**June 2016 to March 2019**

- Reduced deployment times from hours and ever days to minutes. Reduced build times from hours to minutes. To accomplish this I needed to redesign the CI/CD process from the ground up as well as refactor and repackage code to eliminate circularities. I moved the team to GIT and Git flow for source code management, rewrote the Ant build scripts in Gradle, moved them to IntelliJ IDE, added Nexus as a local Maven artifact repository, configured TeamCity for build automation, added Sentry to watch for log errors, and finally added Octopus Deploy to automate the deployments.
- Designed a CMS (Content Management System) alternative using the AWS server less model. This concept is in response to a current Headless CMS implementation that is overly complex, over budget, and can not meet anything close to the concurrent user requirements. This design addresses all short coming of the current system.

**RIIS LLC**

**Code Green LLC**

**June 2015 to September 2016**

- Took a new application from concept to deliver in just over a year. As a Technical Lead / Architect leading a team of 6 developers I delivered a project with hundreds of features. The project supports both native Android and Single Page Application user interfaces powered by REST services. The architecture for this system is pretty standard, SpringBoot is the workhorse of the architecture with Spring Batch for process incoming feeds, JPA for persistence, ADocReport for PDF generation, and SpringSecurity for Authentication/Authorization. The Single Page Application uses AngularJS. The system is hosted in AWS.

***Own The Play, Birmingham, Mi***  
***Code Green LLC***  
***April 2015 to August 2015***

- Project rescue in 50 days. Own The Play is a daily fantasy sport site that was struggling to get their web site running for 270 days with no deliver date in sight. In the roll of Tech Lead, with a team of three developers, we rewrote 80% of the code base and were deployed in 50 days keeping them viable for the next round of investments. The software uses an AngularJS front end with Spring Boot and MongoDB supporting the services. The system requires integration with several third party endpoints including Banks, Identity Verification, and Sport Statistics. The system is hosted in AWS.

***Scratchwireless, Acton, Ma***  
***Code Green LLC***  
***January 2013 to April 2015***  
***Architect***

- Responsible to get the start-up running. Scratchwireless uses a 'WIFI first' approach to change the cellular game. I designed and developed a service oriented architecture leveraging industry proven open source tools to quickly stand up the services and enterprise integration point required to get the start-up on line as well as provide the flexibility to meet the needs of a quickly changing business.

***Chrysler, Rochester Hills, MI***  
***Code Green LLC***  
***April 2011 to October 2014***  
***Team Lead***

- Team lead responsible for the design and development of various FLEX based vehicle diagnostic applications. Possibly the most significant application is the Chrysler Diagnostic Application used by the Chrysler Engineering team to design new models as well as Chrysler Dealership Service Centers for repair and diagnosis. James designed and developed the completely new FLEX user interface as well as the integration to the redesigned service module.

***Team Detroit, Dearborn, MI***  
***Code Green LLC***  
***June 2010 to January 2011***  
***Team Member***

- Project 'crunch time' sometimes requires resources to be brought in that can quickly come up to speed and meet deadlines. At Team Detroit I was able to quickly step in and help a talented team meet their deliverables.

***Cengage Learning, Farmington Hills, MI***  
***Code Green LLC***  
***December 2009 to July 2010***  
***XP Team Member***

- Created a portlet based system to educate our youth. The system repackages Cengage Learning content in a fresh exciting way for Kindergarten through 12<sup>th</sup> graders to interact with online.
- Using the XP Methodology on one week iterations we were able quickly integrate customer feedback into the evolving product.

***Security Inspection, Clarkston, MI  
August 2009 to December 2009***

**Java Architect**

- Responsible for establishing a Flex development practice.
- Refactoring legacy code without unit test coverage can be risky since there is no easy way to tell if an enhancement has unintended consequences. I evaluated and recommended a tool that generates unit test on legacy code enabling the refactoring project to move forward with confidence.

***RL Polk, Southfield, MI  
Xede***

***September 2008 to August 2009***

**Java Architect**

- Responsible for enhancing and extending the Global Price and Specification System in a manner consistent with the architecture principals of Polk. This system allows subscribers (typically automobile manufactures) to evaluate vehicle pricing models. The system is being enhanced to include new features and the User Interface is being enhanced to use [FLEX](#).

***Budco, Highland Park, MI  
Xede***

***March 2008 to September 2008***

**Technical Lead**

- Directed and mentored a blended development team of six Java developers to design and develop a website for IBM using [Agile principles of Test-Driven Development, Continuous Integration and Collective Code Ownership](#)
- Managed and coordinated [configuration management practices, code promotion and packaging](#), and major releases to production
- Produced an extensive [automated test harness using JUnit](#) that exercised the complete code base, from coarse-grained components and services to fine-grained business objects
- Served as the team's [technical architect](#) by designing, implementing and configuring the development environment, which included [Stripes, Hibernate, the Spring framework and Acegi Security](#)
- Extensively leveraged [design and architecture patterns](#) to reduce coupling in solution layers, improve flexibility and increase configuration-driven runtime component assembly
- Designed the complete [database schema](#) for the solution, including tables, indices, foreign key relationship and triggers
- Created test data and [end-to-end test scenarios](#) to test business logic over a simulated duration of one year's time
- Facilitated the definition, [development and testing of nine data feeds](#) to and from IBM and Comerica Bank using [flat-file and XML](#) structures
- Implemented business and technical processes for bar-coding and file uploads of scanned receipts
- Implemented [encryption and decryption methods](#) required by IBM Security and Comerica Bank

***Portico for Blue Cross Blue Shield of Michigan, Southfield, MI  
Xede***

**November 2007 to February 2008**

**Technical Consultant**

- Application Architect responsible for integration of Portico with legacy systems. This work was done almost entirely with XPath and XSLT to manipulate the XML extension points of Portico.
- Portico is an off the shelf tool used to track medical providers and practitioners.
- Skills Used: Experience in XPath, XSLT, JDom and Java

**IBM, Grand Rapids, MI**

**Xede**

**February 2008**

**Technical Consultant**

- Lead a WS-BPEL session for IBM Training. The session was aimed at demonstrating the real world benefits of orchestrating Web Services with the Business Process Execution Language (BPEL) and the ability of Business Activity Monitoring (BAM) to enable processes to be refined and monitored in real time.

**Guardian Industries, Rochester Hills, MI**

**Xede**

**January 2004 to November 2007**

**Technical Consultant**

- Application Architect responsible architectural solutions and prototypes in the areas of: JAAS Security, Caching, Logging, Reporting, Task Scheduling, J2ME, Custom JCA, and Automated Application Server Configuration.
- Implemented an Enterprise Service Bus module based on Mule that manages documents transitioning between Drop Boxes, JMS, and Web Services.
- Worked extensively with J2EE Session Beans and Message-Driven Beans.
- Extended the Weblogic Console functionality by hooking into MBeans to display and manage JMS topic information.
- The World Glass System is a custom ERP system used by Guardian Industries to manage their world wide glass manufacturing operations.
- Skills Used: Extensive experience in all areas of Java and J2EE

**Customer Voice Response for Detroit Edison, Southfield, MI**

**Xede**

**June 2004 to January 2004**

**Technical Consultant**

- Application Architect responsible for analysis, design, development and deployment J2EE integration of Telephony Voice System with legacy information resources.
- This is a state of the art application for processing customer requests over the telephone leveraging natural language recognition.
- Skills Used: VoiceXML, Automated Unit Testing, Design Patterns, Java Development, Database Modeling and Mentoring

**Advanced Object Oriented Class for Detroit Edison, Southfield, MI**

**Xede**

**June 2004 to June 2004**

**Technical Consultant**

- Developed and delivered a class for DTE covering advanced java OO topics such as: UML modeling, Aggregation/Composition/Generalization, Classes vs. Interfaces, Type Safety, Enumerated Types, Cohesion, Coupling,
- Skills Used: Design principals.

**Employee Locator for General Motors, Flint, MI**

**Xede**

**March 2004 to June 2004**

**Technical Consultant**

- Application Architect responsible for analysis, design, development and deployment of an employee locator service user by a suite of several dozen-web applications.
- This service replaced an unsupported database of employee information with a J2EE EJB interface backed by LDAP.
- Skills Used: Requirements Analysis, Design Patterns and Java Development

**Inventory Management System for Anderson Development Corporation, Adrian, MI Xede**

**June 2003 to March 2004**

**Technical Consultant**

- Application Architect responsible for analysis, design, development and deployment of an inventory management system used to track cylinders containing the gas NF3. NF3 is a gas uses in computer chip manufacturing.
- This J2EE application leverages well-established and proven open sources like Struts (a web presentation layer framework), Object Bridge for Java (an object persistence tool), JFreeChart/CeWolf (a charting tool), and JUnit (a unit testing framework) to speed development and reduce the total cost of ownership.
- Skills Used: Requirements Analysis, UML Modeling, Estimating, Design Patterns, Java Development, Database Modeling and Mentoring.

**Great Lakes Consulting Group, Southfield, MI**

**February 2003 June 2003**

**Technical Consultant**

**Client: General Motors**

- Application Architect responsible for analyzing nine applications residing on servers of the roughly 7500 GM Dealerships in the US. The goal was to migrate these applications from a dealership based client server architecture to a Web based architecture, resulting in significant operational savings to both GM and the Dealerships.
- J2EE and Web Services were explored to determine their applicability to this set of application.
- Skills Used: J2EE Architecture, Client/Server Architecture, Requirements Analysis.

**Great Lakes Consulting Group, Southfield, MI**

**June 2002 to February 2003**

**Technical Consultant**

**Client: Federal Mogul**

- J2EE developer responsible for mentoring and developing a web based automotive part ordering system using the STRUTS framework from Apache and EJB Sessions Beans.
- Developed Ant scripts to simplify many of the common development tasks like: building JavaDoc, checking out new source code from VSS, generating reports, creating and deploying war and ear files, and managing configuration parameters.
- Skills Used: J2EE Development, Ant, STRUTS, WebSphere, JBoss, WSAD.

**Great Lakes Consulting Group, Southfield, MI**

**September 2001 to June 2002**

**Technical Consultant**

**Client: DaimlerChrysler**

- J2EE Application Architect responsible for analyzing the application framework requirements for the Fast Car project. The I2 solution that was selected had just been ported to a J2EE architecture and neither DaimlerChrysler nor the on-site I2

consultants knew what this meant to the over all application architecture or development process. Responsible for explaining the I2 architecture to DaimlerChrysler, illustrating how it leveraged J2EE and what this meant to the overall development process.

- Skills Used: J2EE Architecture, 5 year Java Development, XML, XSL, Knowledge of J2EE Best Practices.

***Great Lakes Consulting Group, Southfield, MI***

***November 2000 to September 2001***

***Technical Consultant***

***Client: IBM and ADP***

- J2EE Application Architect responsible for the re-architecture of www.myautogarage.com into a scalable, maintainable solution.
- The system was an early adopter of SOAP style Web Services, J2EE Entity and Session Beans, and Struts.
- Designed & implemented a set of frameworks and tools reducing overall development costs while enhancing the system with features such as Web Services. This included:
  - The Struts framework was leverage resulting in significant development savings.
  - Unit Testing was put in place through the use of tools such as JUnit and HttpUnit allowing a full unit test to be run after each build in just a few minutes.
  - EJB Session Beans were used to provide the application business logic interface.
- Skills Used: Ant, Apache HTTP Server, Entity Beans, HTML, HTTPS, HttpUnit, JavaBeans, JavaDoc, JavaMail, JavaScript, JDBC, Jikes, JNDI, JSP, JUnit, Regular Expression, Servlets, Session Beans, SOAP, SSL, STRUTS, Tags, VisualAge, WAR, WebSphere, WSDL, XML.

***JMD Systems, Farmington Hills, MI***

***October 1999 to November 2000***

***Technical Consultant***

***Client: DaimlerChrysler***

- Lead Developer responsible for developing a system that provided a global view of DaimlerChrysler suppliers located throughout Germany, United States, Mexico.
- Designed the overall Web Application framework, mentoring team members in Java development, and creating a mechanism to receive XML feeds.
- Skills Used: Ant, Apache HTTP Server, Applets, Aspect Oriented Programming, Applets, AWT, HTML, JavaBeans, JavaDoc, JavaScript, JDBC, Jikes, JNDI, JSP, Object Model, Object Oriented Programming, Persistence, Rational Rose, RUP, Sequence Diagram, Servlets, SWING, Use Case, WebSphere..

***Innovation Technology, Southfield, MI***

***October 1998 to October 1999***

***Technical Consultant***

***Client: Client Name Withheld***

- Java developer responsible for creating a code generator that integrates with popular UML tools such as Rational Rose and Together. The generator allowed novice developers to generate error free Enterprise Java Beans, CORBA IDL, Business Logic, and Persistence layers from a UML Class Diagram.
- Skills Used: Applets, Aspect Oriented Programming, AWT, Entity Beans, HTML, HTTP, HTTPS, JavaBeans, JavaDoc, JavaScript, JDBC, Jikes, JSP, Object Model, Object Oriented Programming, Persistence, Regular Expression, Servlets, Session Beans, SWING, Together, UML, WebLogic, WebSphere

***Innovation Technology, Southfield, MI  
November 1997 to October 1998***

***Technical Consultant***

***Client: Kmart***

- Java developer responsible for developing a java application used to track SKUs, and mentoring a team of four developers in UML, Java, JavaBeans, JDBC, and Object Oriented programming.
- Skills Used: Applets, AWT, CORBA, HTML, JavaBeans, JavaDoc, JavaMail, JavaScript, JDBC, Object Oriented Programming, Patterns, Persistence, SWING.

***Innovation Technology, Southfield, MI  
April 1997 to November 1997***

***Technical Consultant***

***Client: Systems Alternatives Inc***

- Java developer responsible for the design and build an application used by scrap metal dealers to manage the cost of doing business. The application tracked not only the cost of the metals but also currency exchange rates and transportation cost.
- Skills Used: JavaBeans, JavaDoc, JDBC, Object Model, Object Oriented Programming, Persistence, Rational Rose, RUP, Sequence Diagram, UML, Use Case

***Electronic Data Systems, Troy, MI  
January 1996 to April 1997***

***Technical Consultant***

***Client: General Motors***

- Smalltalk developer responsible for creating a Client/Server Help Desk System for handling employee benefit claims. Primary focus was on Configuration Management, Deployment, Reporting Subsystem Analysis/Design/Implementation, and Mentoring.
- Skills Used: Smalltalk, Configuration Management, Object Oriented Programming.

***Electronic Data Systems, Troy, MI  
March 1995 to January 1996***

***Technical Consultant***

***Client: General Motors***

- Smalltalk developer responsible for a Client/Server decision support system for manufacturing dies. The system helps users decide whether to scrap or warehouse a die. Primary focus was on system maintenance and enhancements.
- Skills Used: Smalltalk, Object Oriented Programming, Knowledge of Object Persistence, Experience in Client/Server development.

***Electronic Data Systems, Troy, MI  
August 1993 to March 1995***

***Technical Consultant***

***Client: General Motors***

- Knowledge Engineer focused on creating an Intelligent Computer Aided Design system enabling Automotive Suspension Engineers to design vehicle suspensions meeting specific handling criteria in minutes rather than days. This was the first application to integrate Unigraphics (a CAD system) and Kappa (an Expert System Development tool).
- Skills Used: Object Oriented Programming, Knowledge of Expert System, Knowledge of Engineering Domain.



***Electronic Data Systems, Troy, MI  
October 1990 to August 1993***

***Technical Consultant***

***Client: Marine Spill Response Corporation***

- Knowledge Engineer responsible for creating a system that managed resources used in a marine oil spill cleanup operation.
- Skills Used: Requirements Gathering/Analysis, Experience in Client/Server development, Object Modeling.

***Hughes Aircraft Ground Systems Group, Fullerton, CA  
May 1985 to October 1990***

***Member of the Technical Staff***

***Client: US Government***

- Responsible for modeling, configuration, and specification of the Position Location and Reporting System (PLRS) used by the US military to distribute secure data messages and position information in the battle field environment.
- Created an Expert System to manage EPLRS system configuration.