## Gerald E. Bennett, **PhD**

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Solutions Architect | Technical Architect | DevOps | Java Engineer

On a mission to help companies with solving technological problems; improve my craft and the art of programming and to share this joy with others

## **EXPERIENCE**

#### **JANUARY 2022 - MAY 2023**

SR. ENTERPRISE ARCHITECT, NINJAONE LLC.

- Led the successful refactoring effort of a large monolithic SAAS application into microservices architecture.
- Collaborated with cross-functional teams to design and implement microservices-based solutions, improving system performance, security and reducing dependencies.
- Implemented Docker containers and Kubernetes orchestration to optimize deployment and scaling of microservices.
- Developed RESTful APIs and designed data models to support seamless integration between microservices.
- Implemented unit tests and participated in code reviews to ensure code quality and maintainable codebase.
- Improved application monitoring and logging, enhancing observability and error handling. Implemented structured logging framework for AWS CloudWatch, NewRelic, Sentry and SplunkCloud using Mapped Diagnostic Context.
- Worked closely with stakeholders to gather requirements, prioritize features, and deliver solutions that met business objectives.
- Helped migrate continuous integration and continuous deployment (CI/CD) pipelines from TeamCity to CircleCI.
- Created various POC's to determine technical direction: containerized builds using Earthly; containerization using Cloud Native Buildpacks for frontend react applications, nginx, backend SpringBoot and python applications.

## **OCTOBER 2018 – JANUARY 2022**

### SR. ENTERPRISE ARCHITECT/SOLUTIONS ARCHITECT, TEXAS MUTUAL WORKFORCE

- Established identity management strategy by researching leading industry solutions by creating demos, evaluations, and negotiating with management and team leads and rolling out solutions to production
- Established single-sign-on strategy using PKCE flows and illustrated using Angular.
- Evaluated build-vs-buy proposal for automation end-of-year payroll. This effort included a working prototype using the following technologies: React, Typescript and Python Lambdas, AWS Textract, CloudFront, API Gateway
- Participated as a member of the enterprise architect team to evaluate the selection of the cloud vendors and transition to cloud. Evaluated AWS, Azure, and Pivotal Cloud Foundry.
- Established DevOps and CI/CD strategy and tool evaluation selection for artifact repository system: Nexus vs JFrog
  Artifactory; code quality code security tool: SonarQube, VeraCode; Build Tools: Gradle, Apache Maven; Deployment Tools:
  AWS CDK, Terraform, Kubernetes, Waypoint, AWS-Cli
- Build containerization conversion automation cli tool to allow apps to run locally inside Docker Desktop legacy J2EE App and Spring-Boot.
- Conducted work sessions to improve developers coding, testing and work flow practices for topics like Kubernetes, Docker, PostMan, Git and Selenium.
- Explored Caching strategies for caching mechanisms with spring-boot security such as Redis

### **JUNE 2018 - OCTOBER 2018**

### **SOLUTION ARCHITECT / SENIOR JAVA DEVELOPER, TECHNOLOGY SOLUTIONS PARTNERS**

• Architected the integration Apache Activiti processing engine into NIC backend application to provide asynchronous workflow capabilities which is a crucial component of the document and request processing backend engine.

### **OCTOBER 2017 - APRIL 2018**

## SOLUTION ARCHITECT / SENIOR JAVA DEVELOPER, THERMOFISHER SCIENTIFIC - AUSTIN, TEXAS

- Responsible for delivering and maintaining CI/CD workflow of various applications.
- Developed Groovy DSL framework to automatically generate and maintain over 150 Jenkins Jobs and pipelines
- Assisted QA Team design and architect Cucumber automated data driven, JUnit, Selenium test framework
- Implemented Karate BDD Rest based automated test suite for different microservices
- Completed code review and built microservices, using spring boot docker and Apache Solr backend technologies

### **MAY 2017 - AUGUST 2017**

## SENIOR JAVA CONSULTANT, KFORCE INC. SAN ANTONIO, TEXAS / USAA - SAN ANTONIO TEXAS

- Developed front-end Apache Wicket modules for multi-factor authentication and authorization
- Created both functional and integration Selenium test harness for the multi-factor authentication and authorization
- Integrated application with backend REST based services

## OCTOBER 2016 - JANUARY 2017

# **SENIOR JAVA ORACLE RETAIL CONSULTANT,** LILLII RNB, INC. - ATLANTA GEORGIA – METRA/BNSF CHICAGO, ILLINOIS Scrutinized Java systems current architecture and compared different WebServices architectures to determine the best path for integration of TruRating and LAW applications.

- Constructed a framework for the installation of Micros XStore utilizing Ansible roles, playbooks, and Ansible Vault
- Enhanced security
- Reduced installation time
- Increased flexibility in deployment topologies through the automation framework
- Resolved 25+ bugs while performing an upgrade of the ORPOS solutions in Metra's Stores, meeting a strict deadline while delivering codes, introducing build, and testing and upgrading processes
- Mentored team members on the Oracle Retail Store Applications

#### 2011 - 2016

## **CONSULTANT, VOLUNTEER ADVISOR**

- Independent Java Developer/Consultant
- Performed automation of multiple applications
- Conducted automation of Web management tasks by creating JavaFX, Selenium, and WebDriver App
- Created Java/JPA/Java receipt entry application for Ginger Aruba Corporation
- Supplied virtual training modules of Oracle Retail Store Applications for Oracle Corporation

## 2010 - 2011

## ARCHITECT/MANAGER, COGNIZANT CORPORATION AUSTIN, TEXAS/ LOWES CORP MONTERREY, MEXICO

- Constructed integration solutions for the improvement of Oracle Retail applications for the Lowe's Corporation International team. Travelled more than 75% of the time.
- Spearheaded a team to ensure reliability and stability in Lowe's retail stores in Monterrey, Mexico, as well as fashioning a
  procedure for deciphering production software issues
- Created and executed the procedures needed to perform production repairs and support, upgrade, version control, and testing strategies for Cognizant Lowe's Production Support Team while managing the off-site team in India and on-site Monterrey Mexico

### 2003 - 2010

## PERFORMANCE ARCHITECT, (2008 - 2010), ORACLE CORPORATION - AUSTIN, TEXAS

- Designed and architected an automated performance test framework/benchmark for the Oracle Retail Point-of-Sale Oracle
   Retail Enterprise Java/J2EE applications
- Originated automated load performance testing
- Designed HTTP/HTML tests utilized to load test the Oracle BackOffice application
- Created, executed and finely tuned performance bottlenecks for the specific ORPOS topology and applications Senior Development Engineer/Consultant (2004 2008)

Provided on-site solutions, deployment, mentoring for 360Commerce store and enterprise retail applications for 6 different clients. Provided consultation on resource configuration, assimilation, and performance improvement matters of production environments. Served as the architectural and technical liaison for Sears USA and as a member of the sales team for Sears Canada proof of concept phase.

Senior Java Application Developer (2003 – 2004)

Conducted error resolution, code synchronization repairing, and closing complex software amendment requests.

Accomplished performance and reliability enhancements for customer services work for 4 different clients

## 2003

## **CONSULTANT/SENIOR SOFTWARE ENGINEER, VIEO, INC. - AUSTIN, TEXAS**

Originated white and black box JUnit test cases utilized to analyze VIEO's Adaptive Application Infrastructure Management Client/Server, executing integration and system level Java test cases to test the security, server provisioning, and object relational mapping integrity of Vieo's "On-Demand" computing business domain java code.

### 2002

## SENIOR SOFTWARE ENGINEER, TONIC SOFTWARE INC. - AUSTIN, TEXAS

Created, executed, and integrated a JavaScript/Jython test case framework into a preexisting Jython automation test tool allowing for test case modularization and the development of test case drivers.

- Designed test schemes, test drivers, and test cases in Java, JavaScript, and Jython to analyze Tonic's Web Application
   Management Server and Scripting API, involving the testing of Tonic's job types
- Developed and implemented test plans and wrote UNIX test scripts
- Conducted code compliance, code coverage, and performance testing

## 1999 - 2001

#### SENIOR SOFTWARE ENGINEER, CLEARCOMMERCE CORPORATION, AUSTIN, TEXAS

- Designed and implemented first generation client side Java messaging API for the 4.x ClearCommerce enterprise payment engine.
- Converted the API interface to an XML based interface to automatically generate C++ and Java client implementation code of the API
- Architected and developed a test framework to facilitate testing and express test cases in any programming language
- Took initiative to mentor team to ensure a deeper understanding of the ClearCommerce products

#### 1997 - 1991

### **DEVELOPER/SYSTEM ADMINISTRATOR, SILICON RESOURCES - AUSTIN, TEXAS**

Develop tools for hardware Engineers/Consultants; Performs Sys Admin tasks and maintain HP/UX AIX and Linux systems

## **EDUCATION**

## **DECEMBER 1995**

**DOCTOR OF PHILOSOPHY CHEMICAL ENGINEERING,** THE UNIVERSITY OF TEXAS - AUSTIN, TX

## **SEPTEMBER 1990**

MASTER OF SCIENCE IN CHEMICAL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY - CAMBRIDGE, MA

### **JUNE 1990**

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY - CAMBRIDGE, MA

## SKILLS

Technical Expertise
 Platforms Gradle, Maven, Ansible, Docker, VirtualBox, Git, Ant,
 Java, Shell and DOS Scripting, Python, JavaScript, TypeScript, JSON/YAML/XML Spring Boot,
 Spring Cloud, Anacho Activiti, Oracle Petril Store

Frameworks Spring Cloud, Apache Activiti, Oracle Retail Store Tools & IDE Postman, Eclipse, VS Code, Emacs, Spacemacs, Vi

Experienced Container Platforms AWS, Azure, Terraform, Kubernetes, Amazon CDK

Application Servers Websphere, Weblogic, JBoss

Identity Providers Okta, Cognito, Ping Identity, KeyCloak

Architecture MVC, J2EE, Spring-Boot Microservices Architecture

Jenkins, Oracle Micros XStore, HP LoadRunner, Apache Kafka & Solr, VMWare, Hyper-V, Apache

Devops & Camel, WebSphere MQ, FioranoMQ

Infrastructure Tools Vagrant, Packer, Ansible, Chef DSL, Terraform Databases Oracle 11g, IBM Db2, H2, MySQL, DynamoDB

Adaptability, Versatility, Creativity, Performance Testing, Problem Solving and Resolution,

Other Mentoring

Familiar Languages
 SQL, Groovy DSL, Perl, Go, NodeJS, Angular, React

Databases/Caches MongoDB, Redis, DynamoDB