

## TECHNOLOGIES AND TOOLS I HAVE WORKED WITH

Platforms: AWS, Heroku, Bitesize(Hybrid AWS, GCP), Cloud Foundry.

Containers: Docker, Kubernetes.

CI/CD: Jenkins, Concourse. SCM and build

Tools: Git, Bitbucket, Maven, Gradle, Subversion, ClearCase.

Visualization: Prometheus, Grafana.

OSs: UNIX (AIX, Solaris, BSD), Microsoft, Linux, Mac OS.

Languages: Java, Kotlin, Groovy, JavaScript, TypeScript, C, C++, Perl, SQL, HTML, Emacs Lisp.

Spring: Spring, Spring Roo, Spring Integration, Spring Batch, Spring Boot, Spring Cloud, Spring Security, Spring HATEOAS, Spring Cloud Contract.

JavaScript: jQuery, AJAX, Ionic, Angular, NodeJS, React.

Java/J2EE: Core, EJB, JAX-RPC, JAX-WS, JNDI, JDBC, JPA, Quartz, and Apache Log4j, Logback.

App Serv/Cont.: NGNIX, BEA WebLogic, IBM WebSphere, JBoss, Sun Application Server, Apache Tomcat.

Databases/ORM: MySQL, DB2, Oracle, MS SQL, Toad for Oracle, Hibernate, iBatis, MongoDB.

Web Services/o: SOA, REST API, WSDL, SOAP, BEA Tuxedo, Apache Axis2, WS-\*

Design: Visual Paradigm, Enterprise Architect, Rational Rose, Swagger. SCM and build

Methodology: Feature Driven Development, SLDC, Waterfall, Agile, Scrum, Extreme Programming, Pair Programming, Test Driven Design.

ECM: Alfresco, CMIS.

GUI: Flex, ZK, CSS, Spring Surf, JSF, Telerik Kendo UI, Ionic.

Testing: Mercury TestDirector 8.0, HP Quality Center 9.0, Apache JMeter, JUnit, Rational Functional Testing, SoapUI, LabView, Cypress, Jest, Enzyme.

Bug/Inc. Tracking: Jira, Remedy (ISBAN), Pivotal Tracker.

XML/JSON: Castor, Jackson.

Schedulers: Cron, Quartz, Autosys.

## GRARTWORK – Boston, MA

**Software Engineer      January 2013 — PRESENT(2022)**

- Redesign legacy monolithic architecture applications as cloud-native, containerized microservices architecture solutions.
- Migration of Spring Web applications to Spring Boot.
- Development of applications and web services for public administration with spring technologies.
- Development of Groovy and Grails applications for the administration of mobile and web applications.
- Development of Rich Internet Applications for new functionality and flows using Java/J2EE, ZK, Hibernate, Spring, MySQL, Maven, JBoss, SVN.
- Design and implement Document Content Management Solutions for Public Administration with Alfresco, Tomcat, and Spring Surf.

## UNIQUE SYSTEMS SKILLS – Boston, MA April 2022 – September 2022

**Data Science with Python/AWS/DevOps**

- Python.
- Microsoft Python Certificate.
- Data Science with Python.
- AWS DevOps

## KESSEL RUN - ALTOROS – Boston, MA

**May 2020 – October 2020**

**Full Stack Developer**

- Develop Kronos cloud-native solution to set flying and maintenance schedules for an F-35 aircraft squadron in 15 minutes instead of the weeklong process it was when done manually.
- Backend in Kotlin, Java, Spring Integration, Spring Cloud Contract solution.
- REST API.
- Frontend React-Redux.
- Git, Git-together, and Git-mob for pair programming
- Docker containers – AI solution for schedule optimization.
- Cypress, Junit, Jest, Enzyme
- Fortify, SonarQube
- Test Driven Development.

- Refactoring.
- Mikado Method
- Continuous Integration and Deployment using Concourse Pipelines and GitLab CI
- Deployment on Cloud Foundry

**PEARSON – Boston, MA      Dec 2018-August 2019**  
**Sr. Java Developer**

- Redesign Pearson Writer application monolithic architecture as a containerized microservices architecture solution.
- Design Pearson Writer's next-generation API with SwaggerHub using the Open API Specification (OSA).
- Development of microservices and gateways cloud-native applications adhering to the Twelve-Factor App Methodology for building Pearson Writer's components as services modifying JHipster generated microservices applications.
- Deployment of Writer's microservices containerized solution into next-generation PAAS for Pearson's digital education Kubernetes-based cloud platform named Bitesize implementing several deployment patterns as service per instance, per host, multiple pattern using Kubernetes, Consul, Vault, Nginx as ingress Jenkins for automated build pipelines for integrating all the functionalities together. Bitesize S3 registry. Terraform. Terraform Helm.
- Deployment and access configuration of several databases as Amazon Aurora, MySQL, and MongoDB.
- Deployment of Pearson Writer microservices architecture in Pearson's hybrid-AWS platform with Kubernetes.
- Design, implementation, and deployment of Vue.js front-end application.
- Design, implementation, and deployment of Angular front-end application.
- Design, implementation, and deployments of Vue.js log-in application implementing Pearson's security.
- Design and implementation and deployment of aggregate services.

**NORTHEASTERN UNIVERSITY – Boston, MA December 2014 – July 2017**  
**Integration Developer for Mobile Development.**

- Development of Athletics Department GoNU mobile application with Apache Cordova/PhoneGap, NodeJS, JavaScript, TypeScript, Angular I and II, Ionic, Google Maps, Geofences, iBeacons, Oracle, jQuery, OAuth 1.0, Social Media APIs (Facebook, Google+, Twitter, Instagram)
- Development of web applications for mobile apps administration and integration with Groovy and Grails, GORM, Gsp, Spring Security.
- Development of batch applications using Spring Boot Batch technology for mobile apps Push Notifications and package delivery among others.
- Development of PL-SQL procedure to expose Banner 8.X Student module functionality as a REST API.
- Development of Live Scores web application for Athletics mobile app using Groovy and Grails, Apache Commons-Net, and Quartz.
- Android – Troubleshoot, debug and build Android builds for Cordova mobile applications.
- Visitor center – Development of Visitor Center mobile/web application using Polymer Web Components and Twilio Voice & Video SDK. Deployment into Heroku Cloud Platform.
- NUze functionality –Design and development of web application for administration of NUze functionality (messages Northeastern University administration sends to the users of NU mobile app)
- Development of Groovy and Grails application for Northeastern University NU app Survey administration.
- Course Catalogue Application – Build proof of concept and prototype with Google Polymer and Web Components frontend with a Node.js backend interfacing Enterprise services.

**IHM – Institute for Health Metrics – Burlington, MA      November - December 2014**  
**Java Developer**

- Development and testing Groovy DSLs using Scrum Agile methodology, Jira, XML, XSLT, Java 7, MongoDB, Tomcat 7, Subversion, Eclipse, Spring, JUnit on Linux CentOS-7 for health metric indicators.

**NEXTGEN INVENT CORP – Marlborough, MA September — October 2014**  
**Java Developer**

- Design and development of JASCI Sign-On and Security – Implement JAAS JDBCRealm, with Apache Shiro, Java 1.7, Spring MVC, Hibernate, JSP, CSS3, Kendo UI, Oracle 11g, JBoss EAP 6.3.

**INFOSYS – Quincy, MA      March 2012 – October 2012**  
**Java Developer**  
**Financial Services and Insurance - Java/J2EE**

- Design and development of solution to feed Data Acquisition Framework with data from different data vendors. This solution was developed using Spring Core, Batch and Integration frameworks, Oracle database, iBatis, Eclipse, Maven and ClearCase.
- Design and development of Java components for integration of Data Reference information from Data vendors to PolarLake for exchange and processing of financial instruments (securities). Java 1.6, Spring Core, iBatis, Tomcat, xmlSpy, XML, XSD, Castor, ClearCase, Eclipse, SoapUI, Oracle, maven.

#### **BANCO SANTANDER - ISBAN August 2010 – September 2011**

##### **J2EE Analyst – Isban USA – Sovereign Bank, Boston, MA, USA.**

- Integration solutions designs for Financial Crime Control system (WizSentri) with Partenon (Cobol) and Alhambra(J2EE) platforms using JMS, MQ series, and mainframe technologies.
- Batch solution – Cobol (Partenon)
- Online solution – J2EE (Alhambra)

##### **J2EE Developer (BankSphere) – Isban USA - Sovereign Bank, Boston, MA, USA**

- Sovereign Bank transformation. Internet retail, DDR, DDS, and MDLs. Migration from Sovereign platform to Grupo Santander Partenon platform analysis, development, and testing. WebSphere Developer, Rational, Mercury Quality Center 9.0, Excel, SoapUI.

##### **J2EE Analyst/Business Analyst– Isban, Madrid, Spain**

Payments – Clear2Pay, Use Cases, DDRs, J2EE, Mainframe, SEPA, ACH, FOREIGN, clearing houses.

- J2EE analyst in national, pan European and worldwide payments (SEPA Direct Debit, SEPA Credit Transfer, International Credit Transfer), Payment Gateway and Corporate banking. J2EE, EJB, MDB, XPath, XQuery BPML, JBPM, SOA, JMS, MQSeries, HOST(Mainframe), Clear2Pay. EBA, IberPay, ACH, PEP+, Foreign, SWIFT, Target 2, Internet banking USA. Automated testing with IBM Rational Functional Testing, Continuous Integration.

#### **TdA - Madrid Spain May 2010 – July 2010**

##### **J2EE Developer**

- Design and development of Rich Internet Applications for new functionality and flows for asset securities constitution and management in a heterogeneous enterprise environment implementing Feature Driven Development Methodology, FDDPMA. Solution design in UML using Enterprise Architect, and J2EE technologies for SOA (Service Oriented Architecture) implementing Business Process Management with jBPM workflow engine for workflow process flows execution. Physical architecture is a multilayer environment using JBoss Application Server 4.2 as EJB 3 container for business logic, Apache for Axis web services, Oracle 10g, Hibernate for data layer; views developed with Adobe Flex technology. Unit and integration testing using JUnit 3.0, SoapUI plugin for Eclipse for web services, and Apache JMeter. Maven.

#### **DEPARTMENT OF TREASURY San Juan, Puerto Rico**

**June 2009 – March 2010**

##### **Java Developer**

- Design of business process for distribution of federal incentive ARRA. Design and development and support of web applications for data validation and integration with mainframe processes using Java, Eclipse, Spring MVC, JSP, CSS, and Apache Tomcat.
- Design and development of a solution for taxpayer information gathering and collection using an ASP.NET web application as a front-end interaction with end-users. DHTML, CSS, AJAX(Telerik).

#### **ORSYS CONSULTING, San Juan, Puerto Rico March 2008 - May 2009**

##### **Java/J2EE Developer**

##### **API Development - IPTV- APILINK Team**

- Claro-PRT real-time integration implementing Service Oriented Architecture with J2EE technologies to connect telecom Oracle TBS M6 provisioning system with Amdocs Ensemble billing system using: Session Stateless Enterprise Java Beans, BEA WebLogic 8.1, BEA Tuxedo services, Apache Axis2 web services, Oracle, Apache Ant on Solaris systems. Writing Detailed Design, High Level Design and Java code for customer credit verification, deposit creation, deposit refund and customer billing account number information APIs to be used as EJB Web services through the Web Portal by Customers and CSRs for the launch of the new IPTV Service.
- APILink Testing including Unit Testing, System Testing at Amdocs, Sao Paulo, Brazil, User Acceptance Testing (UAT), Stress Testing, Regression and Integration Testing at PRT-Claro. Activity included test case execution and design using SoapUI plugin for Eclipse, TOAD for Oracle, Mercury TestDirector 8.0 and Apache JMeter. APILink knowledge transfer and support to several implementation teams like Claro Web Portal, Coqui ISP, and Provisioning M6.
- Interface Coqui.net ordering System with Amdocs Ensemble billing system. Using Java with Spring framework for IoC pattern, to call API's web services, for real time integration of Coqui.net mainframe wireline billing and

mainframe's ordering system, OSADIA, with Amdocs Ensemble through APILink web services for Coqui.net and maven.

- Wireline Billing Interfaces Migration
- Detailed Interface Specifications documentation generation to describe 250 PRT wireline billing interfaces for real time integration with Amdocs Ensemble billing system. This stage describes the PRT's AS IS wireline billing interfaces.
- Sequence diagrams in UML describing all the interfaces described in Detailed Interface Specifications documentation.
- Design and development of applications integrated with Cognos BI for taxes reporting using JSF, Oracle and Hibernate.
- IPTV/DSL Model Update Interface – JAVA/Spring/Quartz.
- Development for ISP TELCO Activity Monitor Daemon Application – JAVA/Spring/Quartz.

#### **HEALTHCARETEK, San Juan, Puerto Rico     July 2007 to March 2008**

##### **Senior Programmer**

- Design and implement an automated clearinghouse system solution for HIPAA EDI transactions using MySQL, Perl, Linux Suse 9.1. Application development for data extraction from EDI-X12N transactions for reporting claim acknowledgment, status and electronic remittance advice using HIPAA formats and XML technologies.

#### **PREFERRED HEALTH, INC. San Juan, Puerto Rico     September 2006 – July 2007**

##### **Java Developer**

- Design and development of web-based database applications for several reporting purposes at accounting, claims, sales, and administration departments using Java/J2EE, JDBC, Universe, DB2, Eclipse and WebSphere Application Developer/Rational, BIRT, UNIX AIX and IBM WebSphere Application Server.
- Design and development of web service prototypes for HIPAA X12N 270/271 EDI transactions for patient eligibility and X12N 276/277 EDI for claims status using Java, IBM WebSphere, DB2 and Axis2.

##### **Project Manager**

- In charge of organization and management of resources for implementation of the web base Health Plan Administration System from RAM Technologies: HEALTHsuite and eHealthSuite In charge of the Business Requirements definition, Electronic Claims and Encounters Policies and Procedures creation of the Medicare Advantage Lines of Business.

#### **FIRSTPOINT HEALTH GROUP, San Juan, Puerto Rico     January 2005 – August 2006**

##### **Java Developer**

- Development of Electronic Health Records using the Veterans Information System Technology Architecture (VistA), MUMPS, Java, and NoSQL: Caché, GTM.
- Development of several applications to create HIPAA EDI transactions (837/835/270/271/276/277)
- Design of web services prototypes for eligibility and claim status (270/271/276/277) with Java and Apache Axis.

#### **Gauss Research Lab , San Juan, PR     August 1998- December 2004**

##### **Programmer**

- Development of several ccTLD .pr registration web applications for domain name registration, billing and reporting using VB, C#, ASP, ASP.NET, HTML with MS SQL 2000.
- Development of several applications for Information Theory Research with structures like Finite Fields, Costas Arrays, Sonar Sequences, PPMs and CDMA, on C, C++, Java and Assembly

#### **Laboratory for Advance Networking, University of Kentucky, Lexington KY**

**\*\*Scholarship Program of UPR-Computer Science Department\*\***

##### **Assistant Research Programmer**

- Congestion-Aware Layered Multicast protocol implementation with client-server applications on C and Java.
- Ephemeral State Processing and Lightweight Processing Modules (ESP/LWP)
- MIS Department

##### **Programmer & Systems Administrator**

- Development of electronic helpdesk support system for college of Natural Sciences using LAMP Programming (Linux, Apache, MySQL, and PHP) Systems Administration: Linux SUSE. 7.4 Network design, installation, administration,
- troubleshooting and support.

#### **EDUCATION**

##### **Bachelor of Science in Computer Science UNIVERSITY OF PUERTO RICO, SAN JUAN, PR**

National Science Foundation Computer Science, Engineering, and Mathematics Scholarship Award (CSEMS) NSF 00-85

## COURSES AND TRAINING

- AWS DevOps - Unique Systems Skills (2022)
- Data Science with Python - Unique Systems Skills (2022)
- Python – Unique Systems Skills (2022)
- Kubernetes DevNation Master Course.(2021)
- Amazon Elastic Kubernetes Service (EKS) Primer.
- AWS Cloud Practitioner Essentials: Core Services – AWS Training and Certification.
- Microservices with Spring Cloud by Ken Krueger.
- Master Java Web Services and REST API with Spring Boot by In28Minutes.
- Introducing Spring Boot by Dan Vega.
- Learn Spring Boot: Rapid Application Developer by Dan Vega.
- Introduction to AWS Identity and Access Management (IAM).
- Automate the Boring Stuff with Python Programming by Al Sweigart.
- Informatica PowerCenter Developer.
- Git Complete: The definitive step-by-step guide to Git by Jason Taylor.
- Mongo DB for Java Developers.

## REFERENCES

- To be given upon request