**Kumar Asirvatham**

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**Profile Summary:**

* **Over 16+ years** of total experience in **Java/JEE distributed, Internet, Cloud based Applications as Sr. Java Developer/Solutions Architect** Role**.**
* Proficient in Object **Oriented Programming (OOPS) Concepts**
* Very good understanding of **SDLC (Software Development Life Cycle). Experience in System Analysis, Design, Estimation, Development and Testing.**
* Hands-on experience in **Java Struts and Web Services using SOAP and REST.**
* 5+ years of experience using **Hibernate and understanding ORM.**
* 5+ years of experience using **SVN, JBOSS, and Oracle**
* 5+ years of experience with using **Spring MVC frameworks, Eclipse, Java, JPA, JSON and Java Services.**
* 5+ years of experience in leading teams as **Tech lead/Squad Lead**.
* Served as a guide and mentor for junior-level Software Development Engineers.
* **Experience using various design patterns preferably MVC, Singleton, Facade and Factory Proficient in OOD and Implementation.**
* Strong Hands-on Experience in developing multi-tier-based applications using **Java, Servlet, JSP and Web Services.**
* Very good experience in Java **Multithreading** concepts.
* 7 years of experience in Spring Boot by building light weight components to interact with backend systems.
* Around 2 years of experience in **Big data/NO-SQL technologies** such as Hadoop, Map-Reduce, HDFS, Pig, Flume, Hive, MongoDB
* Experience in open-source tools for development, versioning, logging, performance test and UML modeling **– Eclipse,** **IntelliJ IDEA, Log4J, Visio, HP QC and IBM GSM.**
* Experience with testing frameworks like **JUNIT, EasyMock, Mockito and Powermock**.
* Experience in designing **DB, writing SQL queries with MySQL 5.0, Oracle 11G, Informix and SQL Server2005.** Worked with database **GUI tools – TOAD, Queryman, SQL Navigator, MySQL 5.0 client, Oracle 11G.**
* Experience in **CI/CD** tools such Jenkins, Bamboo, Moogsoft and Teamcity.
* Experience in **cloud** and **micro services** with distributed environments.
* Programming experience in **UNIX Shell Script**.
* Experience in **AngularJS** for creating dynamic pages and validation rules.
* Experienced in writing **Ant**, **Maven** and **Gradle** scripts to build & deploy Java applications.
* Hands-on experience in project management tools like **CVS**, **VSS**, **TFS**, **GIT** and **SVN**.
* Good experience working with **Apache Tomcat 8.0,** **Jboss 5.1**, **Web Sphere 7.0 application servers**.
* Good exposure in Design Patterns like **MVC, Adaptor, Observer, Factory Pattern, Singleton Pattern, Façade Pattern, Business delegate Pattern and Listeners**
* Hands on experience in various development methodologies such as **Agile (SCRUM, Continuous integration, BDD, TDD), Waterfall, Iterative**
* Highly creative, motivated and ready to take challenges with an objective to succeed.
* Excellent communication, analytical, interpersonal and presentation skills.
* Experience in leading the small size team.

**Technical Skill Expertise:**

Programming Languages JAVA 11, JEE, XML, SQL, PL/SQL, Unix

Enterprise Technologies: JPA, JAX-RS, JAX-RS, JAX-RPC, JPA, EJB, SOAP, REST

Big data Technologies: Hadoop, Map-Reduce, HDFS, Pig, Flume, Hive, MongoDB, Kafka, Python, Spark, Glue, Athena, DMS

Web Technologies: HTML 5, CSS, Java Script, jQuery, React JS, JSP, Servlet, Dojo

Web/Application Server: Websphere 7.0, JBoss 5.1, Tomcat 8, JRun, Jetty 9.2.3, ATG 10.2

Middleware: IBM MQ, EJB 3

Framework & API: Apache CXF, Spring 4.x, Spring Boot 2.x, Struts 2.0, Hibernate 3.x, Axis 2, Log4J, SLF4J, Swagger

UML Tools: Visio, StarUML, RAD 7.5.5, Rational Software Architect (RSA), Rational Rose.

Quality Tools: J-profiler, VisualVM, Sonar Cube, FindBugs, PMD, J-Meter

Caching/Perf Tools: Oracle Coherence, HazelCast, Memcached, Eh-cache.

IDE & Tools: RAD 7.0. 6.0, WSAD 5.0, Eclipse, IntelliJ IDEA, TOAD, JIRA, Rally

Testing Tools/Framework: JUnit, MockIto, PowerMock, Gherkin, Cucumber, Karma

XML programming: XML, SAX, DOM, XSL, JAX-RS, JAX-WS, StaX parsing

Database: Oracle 11G, DB2, MS SQL Server 7.0, MySQL 5.0, Informix

Version Control: Git, Subversion, CVS and Visual Source Safe

Build Environment: Ant, Maven 3.1.1, Gradle, and Cruise control.

Continuous Integration: Hudson, Jenkins, Bamboo, TeamCity

Operating System: Windows, Mac, Solaris, AIX UNIX, and Linux

Cloud technologies: IBM Cloud, Cloud Foundry, Microsoft Azure IoT, Splunk,

Dynatrace, Docker, Kubernetes

Amazon Cloud Platforms: S3, EC2, Lambda, CloudWatch, Elastic Beanstalk, ECR and ECS.

Development Methodology Agile (SCRUM, TDD, CI/CD, BDD, TDD), Iterative

**Educational Qualification:**

* Master of Science in **Information Technology,** Bharathidasan University, India - 2001.
* Bachelor of Science in **Computer Science,** Bharathidasan University, India - 1999.

**Professional Work Experience:**

Project: Under Carriage Imaging (UCI) June 2023 - till date

Cox Automotive, Atlanta, GA Senior full stack Developer

This project is to automate the vehicle inspection. Buyers and sellers can use these images to make more informed decisions—including those about investing in reconditioning work, assurance offerings and the purchase itself.

The admin web applications is a dashboard of the devices that are installed in multiple auction sites. It gives system admin users to control the IoT devices, configure the devices and get the statistics of the devices.

The Inspection App users(inspectors) can review the captured images from a screen and vehicle reports it release to the customers. And since the images are digital, team members can inspect vehicles remotely any time after a vehicle arrives or even after it has left the lot.

**Responsibilities**:

* Designed and developed IoT device modules health Scheduler by using Azure IoT SDK and configured in Azure cloud twin configurations.
* Developed the UI and API for disable/enable the IoT UCI device using ReactJS and Spring boot and Azure IOT SDK.
* Implemented Junit and selenium tests for unit testing and automation tests.
* Supported UCI device system to troubleshoot and bring up the modules.
* Fix the JaCoCo and Coverity scan code vulnerabilities.

**Environment:** Java 11, RESTful, Spring 4.x, Spring Boot 2.6, Spring data, PostgreSQL, OAuth2.0, Azure Cloud, Git, Spunk, Maven, YAML, Docker, Mockito, SLF4J, Junit, selenium 4, Rally, Jenkins.

**Project: Buy-Checkout** July 2021 – May 2023

**American Airlines,** Dallas, TX Lead Senior Developer

The American Airlines migrates its technologies towards microservices and cloud platform and a project called CustTech FLY. Most of the monolithic legacy web services are drilled down into microservices and the majority of FLY microservices are the business, adapter, and BFF.

The BFF (Backend for Frontend) are the microservices exposed as single entry point most different channels aa.com, AA mobile app and SSM (Self Service Machine) to provide the same user experience. This is the core resource exposed by the microservice, for example, a "reservation" and it provides the operations supported on the resources such as create, read, delete. The datastore holds data required by the service itself such as "reservation data". Each microservice has its own data in object storage Redis, or any other type of datastore appropriate for the owning microservice.

**Responsibilities**:

* Developed Checkout payment orchestrator MS and deployed in IBM Cloud platform.
* Enhanced existing AddToCart MS to add multiple products from various channels.
* Developed a consumer program for Sabre Web Services to replace the Bluewater service.
* Provided production support to deploy the services and monitor logs.
* Provided solutions for caching sessions and other data, we use in-memory Redis cluster.
* Developed terraform script to create the docker image and deploy to kubernetes(EKS) using Helm, GitlabCI, and Docker.
* Developed a multi platform codebase for web, Android and iOS, allowing users to infinitely stream the content.
* Developed cloud native micro services leveraging 12-factor app principles.
* Developed Jenkins scripts for CI/CD for deployment, notification, and update dash.
* Implemented Junit and Mockito for unit testing and integration tests.
* Fix the JaCoCo and Coverity scan code vulnerabilities.

**Environment:** Java 11, RESTful, Spring 4.x, Spring Boot, CLI, Redis Cache, OAuth2.0, IBM Cloud, Git, Spunk, Gradle, YAML, Docker, Helm, Kubernetes, Apigee, Mockito, Junit, logDNA, Dynatrace, Rally, Jenkins.

**Project:** Auto Failover - cloud-waze Nov 2020 – Jun 2021

**Capital One**, Richmond VA Lead Developer

**Auto Failover** is the automation of detecting failures in one region and switching all traffic to the alternate healthy region. Auto Failover Gear cloud-waze enables consistent implementation of Auto Fail over pattern across API stacks.

**Auto Failover gear in action**

Auto Failover deployment using cloud-waze gear for an API in us-east-1 and us-west-2 regions, creates Lambda function (Controller) and R53 health checks in both the regions. The gearfile attaches health checks to R53 records that you specify at deployment time and configures Controller to listen on SNS Topic for CW Alarm notifications.

* Cloud watch alarms that we’ve configured, will continuously evaluate metrics.
* CW alarms send notification to SNS topic when the alarm breach threshold.
* SNS topic forwards event to Auto Failover controller (lambda function)
* Controller validates the event, and then checks if the cross-region health check is healthy or not.
* If the cross region is healthy: the controller inverts the status of the health check in the region to make it unhealthy. Once health check status is changed to Unhealthy, R53 record monitoring the health check will route future DNS queries to alternative Routes.

**Responsibilities**:

* Lead a portfolio of diverse technology projects and a team of developers with deep experience in machine learning, distributed microservices, and full stack systems to create solutions that help meet regulatory needs for the company
* Collaborated with and across agile development teams to implement continuous integration and delivery pipelines, automation, containerization, and cloud native services for deployment.
* Collaborated with digital product managers and delivered robust cloud-based solutions that drive powerful experiences to help millions of Americans achieve financial empowerment.
* Maintained to build pipelines to support automated testing and deployments using tools including Jenkins. Put efforts to improve the tools, testing and deployment strategies using software to solve complex problems.
* Worked with cloud native stack, built on AWS, using technologies like Kubernetes and Lambda.
* Prepared and demoed the sprint releases to management at the end of the PI.
* Worked on monthly production releases and supported the applications.
* Lead the team of developers assisting them with technical difficulties.
* Be part of the architecture team to interact with business teams and interfaces team for FLY.

**Environment:** Java 8, AWS Route 53, ECS, Lambda, EC2, Bogie-gearfile, CloudWatch, Elastic Beanstalk , Spring 5.x, Spring Boot, AWS cloud platform, Docker, Kubernetes, github, Jira, Gradle, YAML, Junit, IntelliJ IDEA, Jenkins.

**Project: Capital Markets – Market point** Mar 2020 – Oct 2020

**Fannie Mae**, Plano, TX (Lead) Java Developer IV

Fannie Mae(Federal National Mortgage Association) is a federal govt sponsored organization which provides products and tools to enable mortgage lending in the secondary mortgage market.

**Capital Markets – Market point** platform provides customers with dynamic loan portfolio management capabilities, increased liquidity options, and competitive execution options for non-seasoned and seasoned loans while optimizing volume, revenue, and competitive positioning for Fannie Mae.

This platform drives Fannie Mae market share by introducing a portal to offer fully optimized/loan level pricing options and streamline the commitment/delivery process. Give customers best execution, liquidity options for every loan and earlier deal certainty through a self-service portal that enables customers to immediately see loan-level eligibility/pull-through and pricing and easily agree to the deal and deliver loans.

**Responsibilities**:

* Implemented micro services to retrieve and persist the micro front end widget configurations into Gemfire in-memory database.
* Migrated Cmmp service project from maven to gradle and created delivery pipeline in Jenkins.
* Designed and developed pre-payment widget using Angular framework.
* Worked closely with UX team on the Angular Widget designs
* Developed CMMP service as Spring boot application to deploy into the ECS cluster.
* Created AWS lambda function to run the widget configuration microservices.
* Designed Widget configuration schema using YAML.
* Responsible for java prototyping for Murex Benchmarking.
* Developed loan/liquidity derivatives application(Murex) using Java, XML, and Unix.
* Involved in appending the daily market data(Murex Daily Market Data db) to the historical market data.
* Implemented Junit, Powermock and Mockito for unit testing and integration tests.
* Worked on a monthly production release and supported the application.

**Environment:** Java 8, Angular 9.1.2, Typescript, JavaScript, AWS S3, Lambda, EC2, CloudWatch, Elastic Beanstalk , Spring 5.x, Spring Boot, AWS cloud platform , Bitbucket, Jira, Maven, Gradle, YAML, Mockito, Junit, IntelliJ IDEA, Jenkins, Swagger, SLF4J, Lombok.

**Project: CustTech FLY Update Reservation** June 2018 - Feb 2020

**American Airlines,** Dallas, TX Lead Java Developer

The American Airlines migrates its technologies towards microservices and cloud platform and project called CustTech FLY. Most of the monolithic legacy webservices are drilled down into microservices and the majority of FLY microservices are the business, adapter, and BFF.

The BFF (Backend for Frontend) are the microservices exposed as single entry point most different channels aa.com, AA mobile app and SSM (Self Service Machine) to provide the same user experience. This is the core resource exposed by the microservice, for example, a "reservation" and it provides the operations supported on the resources such as create, read, delete. The datastore holds data required by the service itself such as "reservation data". Each microservice has its own data in object storage Redis, or any other type of datastore appropriate for the owning microservice.

**Responsibilities**:

* Implemented fly content micro service and deployed in IBM Cloud platform.
* Developed a client code to OpenID to have handshake between the microservices.
* Developed a consumer program for Sabre Web Services to replace the Bluewater service.
* Decomposed Monolithic Bluewater service to microservice based on their functionality.
* Provided solutions for caching sessions and other data, we use in-memory Redis cluster.
* Developed Jenkins scripts for CI/CD for deployment, notification and update dash.
* Developed a POC to containerize the CS Update Reservation Web service using Docker, Kubernetes.
* Implemented Junit and Mockito for unit testing and integration tests.

**Environment:** Java 8, RESTful, Spring 4.x, Spring Boot, CLI, Apache CXF, XML, Redis Cache, OIDC, Sabre Web Service, IBM Cloud, Git, Spunk, IBM Tealeaf, Gradle, YAML, Docker, Kubernetes, Mockito, Junit, Eclipse, Dynatrace, Rally, Jenkins.

**Project:** Mobile Web Services Apr 2016 - May 2018

**American Airlines,** Dallas, TX Lead Java Developer

The Mobile Web Services (MWS) is the backbone of the American Airlines Mobile (Android & iOS) applications. This system exposes various APIs to the mobile app to load the data fast enough from various backend systems. The MWS provides services through a REST based web services and make the backend calls (SOAP/Database). The mobile devices communicate through HTTPS and will receive a JSON response. The source of the request is validated using a TOKEN based authentication scheme is defined to avoid any malicious usage of the REST based services.

**Responsibilities**:

* Implemented and optimized the performance of Customer-Hub SOAP call.
* Developed a reservation droplet to make inventory reservations on the fly.
* Implemented Junit and MockIto for unit testing and integration tests.
* Developed highly available, reliable and secured API solutions using Microservices and Spring Boot Framework to fetch Flight status.
* Refactored and optimized the Check-in code to improve the performance.
* Tuned by examining the application architecture for potential bottlenecks.
* Reduced the number of temporary objects being used, especially in iterations.
* Developed Models, Views and Controllers using JQuery, BackBone & Angular Frameworks
* Worked on UI designed in Angular JS that connects to the backend through WebSocket to receive the shortened JSON data.
* Implemented a multi-process framework to combine Java processes into one JVM.

**Environment:** Java 8, RESTful, SOAP, Hibernate, Angular JS, Typescript, JavaScript, Spring 4.x, Axis2, Apache CXF, Oracle 11g, Git, MockIto, Junit, Maven, Eclipse, Rally, Jenkins and Pivotal TC Server 3.2 server

**Project:** ATG-OMS Integration Sep 2015 - Mar 2016

**Express Inc.,** Columbus OH Lead Java Developer

This is project is a part of Express (www.express.com) fashion apparels E-Commerce portal. EXPRESS integrates their Ecommerce system (ATG) with their new OMS (Manhattan) system. The communication between the ATG and the Enterprise Order Management (EOM) is designed in SOAP and/or Message Queue way.

The integration covers the below key functionalities,

1. Tax and Payment
2. Order reservation and order creation
3. Fulfillment Sync
4. Inventory Sync
5. Promos and Rewards
6. Credit Card Application

**Responsibilities**:

* Designed and integrated MQ implementations as Consumer and Producer
* Implemented SOAP client components using Axis2/XMLBeans to consume OMS/third party services.
* Developed reservation droplet to make inventory reservations on the fly.
* Implemented batch scheduler to download and store the tax details for offline orders.
* Developed the service for Express’s credit application module.
* Worked on CheckoutFormHandler and CartModifierHandlers for verification and validation of the transaction.
* Implemented Junit and EasyMock for unit testing and integration tests using.
* Developed Oracle Stored Procedure to purge the transactional and versioning data.
* Optimized the code to tune the performance.
* Tuned by examining the application architecture for potential bottlenecks.
* Reduced the number of temporary objects being used, especially in iterations.
* Implemented a multi-process framework to combine Java processes into one JVM.
* Performed Load testing using J-Meter

**Environment:** Java 6, ATG 10.2, Axis2 SOAP Web services, JMS, IBM MQ, XML, iBatis 2.3, Oracle DB 11g, Git, EasyMock, Junit, Eclipse, Bamboo and Jboss EAP Server 5.1

**Project:** Omni Channel Service integration March 2015 - Aug 2015

**Victoria’s Secret,** Columbus OH Solutions Architect

This is project is a part of Victoria's Secret (victoriassecret.com) E-Commerce portal. It is used distribute/send emails (marketing & operational) to the customers through third party (Sale force) marketing cloud to automate entire marketing campaigns.

It is integrating the Victoria's Secret and the third party system by invoking protocol agnostic interfaces across REST and SOAP web services to pass the customer details in secured environment as well as automated token management.

**Responsibilities**:

* Designed and integrated service implementations with Salesforce cloud system.
* Designed O-Auth2 implementation to get Client Id and Secret for salesforce service authentication.
* Implemented Spring MVC API to expose services to the front end implementation
* Implemented Powermock for unit testing and integration tests using.
* Implemented SOAP client components using Apache CXF to consume third party services.
* Conducted code optimization, and performance tuning.

**Environment:** Java 7, REST & SOAP Web services, XML, JAXB, Spring Framework, Maven, Oracle Coherence, Git, Powermock, Junit, RAD 7.5, TeamCity and Jetty Server 9.2.3

**Project:** BlueData Virtualization June 2014 - Feb 2015

**JP Morgan Chase &Co.**,Columbus, OHSenior Java Consultant

Data provisioning and Virtualization are key elements of this project to support detached testing of the Chase development platform. The Data Provisioning Engine supports developers and the QA in providing unit test data for meeting scenario test conditions that are replacing the need for developers to manually create mocks.

The Virtualization allows for the recording and playback of interface dialogues to emulate real interaction between system layers. Virtualization services allow for the recording and playback of dialogues, eliminating the need for DPS, Chase Classic Services and POD DB to be integrated with real environments. Virtualization can be leveraged in Scrum Dev and QA environments to enable testing without integrated dependencies.

**Responsibilities:**

* Worked in Agile – Behavior Driven Development (BDD) model.
* Developed multiple RESTful APIs to interact with Mongo DB and Lisa server
* Developed APIs for Git repository and Mongo db CRUD operations to support business requirements.
* Acted as Data engineer to virtualize the services using Spring Shell and Mongo db.
* Created Virtualizer component in multithreaded fashion to extract and deploy the MAR file in Lisa server.
* Written gherkin automation test scripts to execute in Cucumber - Selenium.
* Implemented Page Objects, Data Driven, Keyword Driven, Hybrid automation frameworks using Selenium.
* Developed a Virtual Data servicer as Microservice using Spring boot.
* Automated highly transactional web application using Selenium WebDriver.
* Implemented Micro services with Netflix Eureka.
* Written j-unit and mock tests require for automation framework
* Conducted code optimization, and performance tuning.
* Experience in leading four members team.

**Environment:** Core Java 7, REST, Gherkin, Cucumber, Apache CXF, Dozer Mapper, Oracle Coherence, Spring Framework, Spring boot, Spring shell, XML, JMS, StaX parser, Maven 3.1.1, Eclipse, Mongo DB, Git, Mockito, Bamboo and Tomcat 7

**Project:** Global Online Fulfillment (GOLF)Mar 2013 – May 2014

**Wal-Mart Stores Inc.**,Bentonville, AR Solutions Architect

The GOLF is a new (Omni) multichannel fulfillment solution for stores that will provide a foundation for a global system that integrates order management, picking and delivery to the customer. This project delivers the platform and foundation for the global delivery of in-store fulfillment capabilities: order management, picking, staging, and dispensing of orders.

The GOLF has a hybrid configuration and modular design based on the identified components. It enables easy integration, greater system flexibility, reusability of components and lower maintenance.

It is also capable of:

* + Globalization – supports all existing and future markets.
  + Mixed merchandise – supports fulfillment of orders with various types of merchandise.
  + Flexible delivery options – supports various options for getting an order to the customer.
  + Service level agreement – supports cost effective and timely fulfillment and delivery to the customer.

**Responsibilities:**

* Involved to the Design the component and prepared the Design & Architecture documents.
* Developed RESTful web services to facilitate to Order Life Cycle Manager (OLCM) component for requesting notification manager to compose canonical MQ message.
* Developed MapReduce programs to cleanse and parse data in HDFS obtained from various data sources.
* Developed a Queue Manager utility component to handle multi-channel queues.
* Built Interfaces to speak with cross platform systems.
* Created the Maven script to build the project in Jenkins.
* Participated peer code review and unit testing.
* Code Deployment & Change Management.
* Experience in leading six members team.
* Conducted code optimization, and performance tuning.

**Environment:** Core Java 1.7, RESTful Web services, Hadoop, Map-Reduce, Pig, Flume, Spring framework, Informix, IBM MQ, Maven 3.1.1, Jenkins, Websphere App Server 7.0

**Previous projects:**

* **Project:** Global Inventory Audit SystemSept 2011 – Feb 2013

**Wal-Mart Stores Inc.**, Bentonville, AR Solutions architect

* **Project**: Open Commerce Platform (OCP) May 2011 – Aug 2011

**FRY Inc.**,Chicago, IL Senior Java Consultant

* **Project:** SAFE Compliance  **Senior Developer**

**MasterCard Inc.**, St. Louis, MOMar 2010 – Apr 2011

* **Project:** Order Management System (Samsclub.com) Sept 2008 – Feb 2010

**Wal-Mart Stores Inc.**, Bentonville, AR **Senior Developer**

* **Project:** SOBay (Service Oriented Bay). Nov 2006 – Aug 2008

**Boeing**,Huntsville, AL **Sr. Software Engineer**

* **Project**: PARMA Jan 2006 – Oct 2006

**Rabo Bank**,Netherlands **Software Developer**

* **Sansar Capital LLC**, New YorkMay 2005 – Dec 2005

**Software Developer**

* **Subra Transports Pvt. Ltd.**,IndiaJuly 2004 – Apr 2005

**Software Developer**