Atul Kumar Tiwari

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Summary

Highly skilled Software Development professional bringing more than 14 years in software design, development and Integration.

Self-directed and motivated Software Engineer who works effectively in a dynamic environment, fluent in Open source frameworks like Kafka, Spring, Apache Camel.

Lead/Architect with expertise in all aspects of the software development life cycle, including requirements analysis, design, development, deployment and production.

Dynamic Lead/Architect skilled at developing complex solutions possessing strong creative thinking skills with high energy and integrity.

Software Developer with strong knowledge of real-time systems, factory automation and software configuration management.

Software Engineer who successfully develops software and systems for high-traffic trading, e-commerce and retail services.

Software Engineer well-versed in creating test cases, as well as covering all test conditions and eliminating redundancy and duplications.

Expert Software Developer dedicated to constantly improving tools and infrastructure to maximize efficiency, minimize system downtime and quickly respond to the changing needs of the business.

Skills

Java 8/7/6/5, Python, Angular, Cloud (AWS and Azure)

Spring framework (**Boot**, AOP, IOC, JDBC, MongoDB, Batch, Integration, RESTful, HATEOAS)

RESTful Services, **Micro Services**, SOAP Services.

Azure Cloud Integrations.

AWS Certified Solution Architect.

Containerization and **Orchestration** using Docker containers, **Kubernetes**.

MongoDB, MySQL Server, Oracle 11g/12c

Integration Framework : Apache **Camel, Spring.**

Messaging Framework : ActiveMQ, SQS, **Kafka, IBM MQ**

Design Patterns   : Service Locator, Business Delegate, Data Access Object, MVC, Factory,

Abstract Factory, Singleton, Decorator, Facade, Observer.

Mobile technologies   : Android, Firebase

Development   : JavaFX 8, Servlet, Multithreading, JVM Performance Tuning, HTML,

JSP

Scripting   : Bash, XSLT/Perl/Python2/3, PHP

Tools/IDE   : Intellij IDEA, Eclipse, JDeveloper 11g/12c, Netbeans 7/8. PyCharm

Application Servers   : Tomcat 5/6/7/8/9, TomEE, Jetty, tc Server, JBOSS 5/6/7, Glassfish

  3.1/4.1, WebLogic 10.3/12, JBoss EAP 6.1, Wildfly 8

Methodologies   : **Agile**, Waterfall, **TDD**

Dev tools   : Trac, Polarian, Sonar, XPlanner, StatSVN

CI tools   : Jenkins/Hudson, Stash

Web Servers   : Apache Httpd, nginx, Wamp 2.5.

Build Tools   : Gradle, Maven and Ant.

Operating Systems   : CentOS, Fedora, Ubuntu, OSX, Windows

Virtualizations   : VMware, Boxes.

VMs Management Tool : Vagrant, Ansible.

Big Data technologies : Hadoop (Beginner Level), Kafka, Zookeeper

Javascript Frameworks : **Angular** 2/8/9/12, **Bootstrap**, Vue.js

Javascript libraries   : jQuery, **React**

Experience

Total Systems, Noida — *Sr. Technical Lead*

- Playing role of a Senior Technical Lead/Architect/Technical Business Analyst

- Creation of Design Documents, providing technical analysis and document endorsement from clients.
- Grooming requirements with developer, sizing and estimations.
- Working with PO, Delivery Manager and client to deliver solutions end to end
- Integration, Security, Authorization of APIs
- Product Architecture, configuration for Cloud Deployment.
- CI/CD Pipelines for Automated build and deployment.
- Creation and Development of End to End monitoring of infrastructure and Deployment using Prometheus/Grafana Dashboard.
- Event based Architecture and development using Kafka for identifying APIs uses.
- Multi-Tenant Product Migration to API based Containerized Application.
- Distributed Auth Messages Monitoring framework for monitoring Authentication Messages generated from POS devices.
- Creation and Deployment of Highly Available (Four 9s) solution.
- Testing Framework for automated testing of Products.
- Development (Feature addition) in 2 Internal **React** Projects (Products) for Configuration management.

Feb 2017 – Nov 2018

TD Ameritrade, Omaha, NE– *Consultant*

- Playing role of a developer
- Managing highly available, highly transactional and Mission critical applications.
- Managing 320 Coherence server Grids with distributed cache.
- Understanding and management of Oracle Coherence.
- Proposing an Intelligent (AI) solution to Auto take care of restarting of Coherence grid servers and warming up the Cache.
- Tuning of Distributed caches (Oracle Coherence).
- Understanding and fixing bugs in Fix Flyer.
- Understanding and fixing bugs in Order Routing.
- Refactoring of Code flows for better Abstraction, Polymorphism and loose coupling.
- Bug Fixing and Workflow corrections.
- Worked on the Commissions Module.
- Understanding and fixing bugs related to Commissions.
- Using Tibco as a message broker for processing the XML messages from back office to ngoms.
- Creation and Modification in Publish/Subscribe module to push/consume messages.
- Worked on Puppet/Jenkins.
- Created Java API's to store messages if the Subscriber is down.
- Written/configuration of JMX mbeans for all the servers for Server health.
- Analysis of Threads and profile data to analyze a crash.
- Created Gradle script for managing dependency and build tools.
- Used splunk for keeping track of servers and log data.
- Designed and created a JavaFX8 application to keep track of the servers/caches/application health.
- Used spring framework for managing the dependency.
- Used Tidal as scheduler.

- Creating a POC on Apache Camel for easy Routing of Orders as well as Integration framework.
- Improving logging and error detection.
- Being part of a support team we have to make sure that every process is in sync and works without fail.

Comcast Cable, Aurora, CO – *Consultant*

- Played role of a developer
- Used Vagrant for automating the development environment.
- Written Vagrant scripts to automatically install CentOS and configure all the Software stack required for development.
- Written Shell Scripts for update and install softwares.
- Used Elasticsearch indices as a data storage to calculate the statistics.
- Creating and managing Elasticsearch Instances and indexes using scripting/Java APIs.
- Used kibi as a GUI to represent statistical data to UI.
- Configured various dashboard views in kibi to collect and create graphs.
- Consumed Rest APIs provided by Rally to collect the data from Rally.
- Consumed Rest APIs provided by Github to collect data from git.
- Written Java API's to collect data from internal databases.
- Used MongoDB to store data used in statistics.
- Created REST APIs for consumption by different other teams.
- Used Spring Boot to create the REST APIs.
- Created Ansible playbooks for configuration management.
- Used Ansible Tower for provisioning, deployment and workflow Orchestration.

Blackhawk Networks, Pleasanton, CA – *Consultant*

- Used Executor Service and Callbacks for creation and handling of Multithreading APIs and synchronization.
- Played the role of a Senior developer
- Used Spring AOP to write cross cutting concerns.
- Used Spring Batch/Mongo Collections for bulk insert.
- Used Producers/Consumers pattern for processing AWS SQS messages.
- Used AOP for Logging/profiling and updating data to MongoDB.
- Storage/Retrieval/Processing of messages in AWS SQS.
- Creation/management/handling of S3 Buckets in AWS Cloud.
- Created a new module for storing & processing Order's Line items and Card information in MongoDB.
- Used Spring Framework, EAI through Apache Camel and Apache CXF.

- Created Transformer (XML to Objects) for 'Shipment Notifications', Order Request and Order Response.
- Created RESTful web services.
- Consumed RESTful services to retrieve and process the data from other modules.
- Wrote Transactional handler for RESTful services.
- Used Junit/Mockito for unit testing.
- Created Maven scripts for managing dependencies and project structure.
- Created spring configuration, DI (Dependency Injection) through Annotations.
- Creation of Controllers, Services, Manager and DAOs.
- Injection of Services into Controllers using Spring DI, Injection of Managers into Services using Spring DI and Injection of DAOs into managers using Spring Dependency Injection.
- Cloudification of new application modules.
- Configuration & Deployment of modules to Jenkins.
- Used Scrum methodology.
- Involved in Stories grooming, Iteration planning, Sprint Demo & retrospective.

APRIL 2014 - APRIL 2015
GlobalLogic India Ltd, Noida, India– *Sr. Lead Engineering*

Client: Sharda University (CSR Project)

- Played the role of a Lead
- Understand the requirements, Software stack finalization and Deployment diagram, Design, development.
- Created design documents HLD, LLD, Sequence diagrams, Interaction diagram, use-cases, ER-Diagrams, Deployment Diagram.
- Wrote Maven scripts for managing dependencies and project structure.
- Initial Architecture (boiler-plate) spring configuration, Spring Security using CSRF, Spring MVC configuration, Spring View-Resolver configuration, DI (Dependency Injection) through Spring IoC, Spring AOP.
- Logging, Security, Transactions and Profiling achieved through Spring AOP.
- Used multithreading to process Data Parallel.
- Used Service Locator pattern to locate the service deployed on different tiers. Used Spring/JSON configuration to get the response in JSON.
- Spring Configuration for getting the Data Source. This was done for declaring and configuring the Transaction Manager using JTATransactionManager.
- Controllers, Services, Manager and DAO is declared as Spring Beans
- Services injected into Controllers using Spring DI. Managers injected into Services using Spring DI and DAOs were injected into managers using Spring Dependency Injection.
- Created ER-Diagram by using MySQL GUI tool. Generated DDL script through reverse-engineering function of MySQL Workbench.

- Maven Scripts made for two modules, one is Core module, which contains only the API's, then this API is used as a Dependency in the Web-module.
- Created filters using Servlets and Views using JSP.
- Management and deployment of code in Tomcat/Glassfish servers.
- Configuration of Tomcat/Glassfish/Apache 2.2.

Client: Windstream Mobility

- Involved in the analysis, requirement gathering, breaking requirement into stories & work estimations.
- Impact analysis for refactoring the Code.
- Designed contracts for the APIs using Gliffy.
- Wrote interceptor (Struts2) for parsing the incoming request and routing it to the correct action as well as to check for the permission for that view.
- Design and implemented a Base Struts2 Action class, which extended the functionality of the ActionSupport class of Struts 2 and encapsulated the behavior at commonplace.
- Used TDD as a development methodology.
- Responsible for writing a base SessionAware ActionSupport, which encapsulated common behavior to deal with HTTPSession.
- Created new and modifications in existing stored procedure to find out the outage in an area.
- Created ER-Diagram by using MySQL GUI tool.
- Generated DDL script through reverse-engineering function of MySQL Workbench
- Created Restful Web services.
- Involved in mapping parameters from SOAP to JSON
- Configured/Used Jenkins for Continuous Integration.
- Used Agile (Scrum) Methodology.

Client: GXS (Open text)

- Used JDK 7, Junit4 for the development & testing.
- Involved in the analysis, requirement gathering, breaking requirement into stories & work estimations.
- Wrote stored procedure using PL/SQL,
- Used Jasper Reports to generate Reports for business uses.
- Designed and programmed JRXML to generate reports.
- Wrote an algorithm to generate the reports columns dynamically.
- Used Factory pattern to get the proper Report format e.g. excel, pdf, html, csv
- Wrote a java module to render the UI as per business rules defined for a particular client.
- Configured surefire plugin to generate code-coverage report for unit test cases.
- Used mercurial as version management tool
- Technical stack: Agile (Scrum) Methodology, JEE, Junit4, Mockito, surefire, Spring Framework, Maven, Ant, Oracle 10g, XML, JRXML & Jasper Reports.

Birlasoft India Ltd, Noida, India– *Technical Lead*

Client: GE

- Played the role of a Lead.
- Implementation of SOAP services through JDeveloper 11g and deploy to Oracle Enterprise Service Bus.
- Installation, Management of Oracle fusion middleware 11g.
- Used Oracle Application development framework to generate the SOAP service through bottom up approach.
- Generation of proxies for services. Embedding of services, routing logic into ESB through BPEL.
- Support for BPEL, so that if any BPEL service fails it needs to pick up the exception and have to identify the root cause for it.
- Generation of Stubs through JAXB so that it can be packaged into a jar and used in other modules as a dependency
- Used XPath and XQuery for selecting nodes in XML
- Written XSD, XML and XSLT for validation, translation of XML file for Admin Uses.
- Implemented Quartz Scheduler to the project to achieve scheduling in the application.
- Design/Architect Admin panel to configure the scheduling, so that users can schedule the application from their mobile phones, and schedule/reschedule new/old services through their phone.
- Implemented all three beans (Message, Session, and Entity) of EJB 3.1 specification.
- Used JAAS for security
- Used Apache ActiveMQ
- Modified Struts Default implementation of File Upload Interceptor to customize file upload process.
- Used WebLogic 10.3.6 for configuration and deployment purposes
- Responsible for UAT
- Used Core Java, Servlets, JSP, Spring, Struts 2, ANT, JDBC, Subversion, Web logic 10.3.6, Oracle Fusion Middleware 11g, JDeveloper 11g, Oracle ADF, JSF 2.0, Oracle ESB.

Client: Xerox Corporation.

- Played the role of a Lead.
- Built a very generic and Dynamic UI to control the UI using the Admin panel.
- Involved in the analysis, requirement gathering, breaking requirement into stories & work estimations.
- Responsible for Finalizing the Technology stack.
- Responsible for UAT and resolving business problems.

- Created design documents HLD, LLD, Sequence diagrams, Interaction diagram, use-cases, ER-Diagrams, Deployment Diagram.
- Configuration and preparation of a Development machine. Configuration of Apache HTTP server for Reverse Proxy, Content Filtering, Rewrite Policy, routing and load balancing.
- Wrote and managed Struts2, Spring 3.5 Configuration files.
- Configuring packages, accessing URLs and defining roles/rules for them.
- Wrote a bootstrap loader for application so that if the environmental properties change the application can be changed accordingly.
- Implementation of internationalization through Struts I18N. Wrote a tool (Like wizard), to generate a complete Web UI through some mouse clicks only.
- Written Algorithm to generate UI Suggestions (Like how many panels will be there in UI, how many elements (html elements) will be there in a panel).
- Created all the Database related scripts, DDL, DML and ER-Diagram.
- Used Core Java, Servlets, JSP, Spring, Struts 2, ANT, JDBC, Siebel API, Subversion, Sun One application server (production), Tomcat 7 (Development), Apache httpd server

DEC 2009 - APRIL 2012
eZdia Inc. Noida, India– *Manager Technology*

Product: ezdia.com

- Played the role of a Lead.
- Involved in the analysis and debugging to improve the platform.
- Performance Improvement after profiling the application.
- Fixing bugs and defining strategy for a bug free platform.
- Identifying usability issues and fixing them with the help of Designer.
- Preparation of boxes for development/Staging/production for use.
- Technical stack: Java 6, jQuery, Struts2, Spring 3.x, Tomcat 6, Glassfish V3.

Client: High Radius

- Played the role of a Developer/Lead/Architect.
- Involved in the analysis, requirement gathering, breaking requirement into stories & work estimations.
- Finalized the technical stack.
- Preparation of boxes for development /Staging/production for use.
- Involved in the decision to go with a bottom-up approach for this Application as they wanted to use their legacy DB.
- Review High-level design (HLD), Low-Level Designs, Functional requirements & Impact analysis.
- Created hibernate configuration file through JBoss Seam plugin.
- Generation of hbm.xml files through eclipse reverse engineering plugin.
- Tweaking generated hbm.xml files as per the usage (e.g. lazy loading, key generation etc.)

- Creation and maintenance of spring configuration, Transaction Manager and Aspects.
- Wrote various aspects in the application like Logging, performance measurement, Session management etc. through Spring AOP.
- Design and implementation of Rollback point cuts and advice in spring configuration files.
- Responsible for all layers except presentation and have to return data in JSON.
- Management and deployment of code in Glassfish 3.1 servers for all the environments: DEV/QA/Staging/Production
- Configuration of Glassfish/Apache 2 on production
- Tuning of Glassfish3 for Production environment.
- Technical stack: Java 6.0, JavaScript, HTML/DHTML, XML/XSL, Struts 2, Spring Framework 3.x, Hibernate 3.0, ExtJS, Dojo.

NOVEMBER 2006 - NOVEMBER 2009

One97 Communication Pvt. Ltd, Noida, India– *Software Developer*

- Played the role of a developer.
- Involved in configuration of short codes like 53030. Configured kannel software (used to store and forward text message)
- Responsible for configuring SMS push UI through which bulk text messages are sent.
- Wrote an algorithm which allows you to edit a Picture message (MMS) and write the name of a user.
- Involved in writing J2ME application, which allows you to identify the location of a user by using their cell-id

Side Projects

- .Complete **Cloud Architecture** Design (**Azure**) of Patient Record processing for health care domain for one of the biggest client in Health domain (Name: Confidential), Cloud security, Management Console using **Angular 12**
- **3 Portals** using **Angular 8/10 and Bootstrap 4** as UI technologies (Hosted using Google firebase)
  - https://a2slshop.web.app/
  - https://www.a2softwarelab.com
  - https://www.a2softwarelab.in/#/intro
- Multi-camera module using Raspberry Pi 3, PiCamera, for multi-live-stream, recording of Video at 30 FPS/1080p Resolution, using Python 3.7/Flask.
- Android Order Processing system with firebase as backend for a Friend's restaurant.
- Youtube/Facebook Video downloader using JavaFX8.

Education

AUGUST 2003 - JULY 2006
Ajay Kumar Garg Eng. College, Ghaziabad, UP India *– MCA*

JULY 1999 - JULY 2002
KGK Degree College, Moradabad, UP India *– B.Sc. (Physics, Math's)*

References

Personal Reference: At Request.

Declaration: I hereby declare that the above information is correct to the best of my knowledge.

Last updated: May 15, 2019 at Noida, India.