Dheeraj Agrawal

(Lets Linked-in, Check out AWS Portfolio, GIT-Hub)

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Summary

An ingenious and resourceful developer with 12 years of extensive proven experience with working on a wide umbrella of technologies. Have more than 4 years of leadership experience along with stakeholder management and team engagement.

Most recently working as a Lead Developer in a team of 4 developers, playing as a catalyst in mapping business requirements and organizational direction into software solutions. Liaising with stakeholder and customers in identifying and negotiating requirements. Coordinating with the enterprise architect to identify functional and non-functional requirements, preparing technical designs using latest technology frameworks.

Conducting workshops and training session on latest and greatest technologies being used, thereby upskilling the team and keeping the workplace up-to-date with the market needs. Engaging team discussions and promote new ideas, thereby taking feedback on solutions to be better and more productive.

Making sure quality is delivered in every release with zero bugs and zero downtime.

Organizing showcase on the progress and achievements by the project and team members. Contributing to the organization knowledgebase and improving/inventing process to foster happier, productive and healthy development environment.

Conducting weekly open house developer meet, to contribute new ideas and technologies used in different teams, challenges faced and ways to overcome problems.

EXPERIENCE: 12+ years	
SKILLS	**(yrs)**
Java, J2EE, Struts (MVC), JavaScript, XML, XSD, XSLT, PL-SQL	12
Apache Tomcat, UML, Oracle, Visio, Junit, AJAX	9+
Spring (MVC, AOP, DAO), Hibernate, Shell Scripting, Linux	7
JQuery, EJB 2.0, Web Service, MS SQL Server, Ant, Maven, REST-ful Web Services, Angular.js, Bootstrap.js, spring-boot, Spring-boot-batch, spring-integration	5
Apache Camel, Redis, PostgreSQL NoSQL, ComteD, NewRelic, YAML, Reactor.io, TestNG, Mule ESB, VERT.X, Zookeeper, MOCKITO, Powermock, AOP, SOAP UI, Axis API, JQuery-Mobile, Storm, Finagle, Cobertura, D3.js, Node.js, Grunt, Adobe Flex 3.0, Android ADK, Struts 2, Quartz Job Scheduler, Mongo DB, backbone.js, Bootstrap.js, Lo-dash.js, Underscore.js, d3.js, Jetty, Bamboo, Jenkins, SVN, GIT, GIT-Hub, REST Fuse, Jersey Test, Python, Groovy, Ubuntu, Mac OSX, Fedora, Maven, ANT, Nexus, Continuous Integration, Atlassian Suite, Python, Scala, Sonar Cube, Apache Storm, Trident, Storm-Redis. ETCD, FasterXML, ELK (Elastic-search, Logstash and Kibana) stack, Spock, H2 embedded, Graph DB Neo4j, Logback, Splunk	<=3
PROJECT MGMT:	Scrum, Agile, Test Driven Development (TDD) and ITIL
CERTIFICATION:	Sun Certified Java Developer, Insurance Domain Certification

EXPERIENCE

Lead Developer - **TABCORP PVT Ltd**	05/2015 – Present

Responsibilities

- Designing high throughput and performance intensive application
- Designing high-frequency transaction based application
- Documenting and presentation of the design to solution architect and getting them approved
- Requirement gathering and performance tuning
- Supporting testing team to release the solution on time without bugs.
- Standardizing the development process and methodologies to use latest and most optimal technology stack
- Proposing new innovative ideas to make application perform better, faster, in most effective manner at the same be more maintainable and robust with efficient error discovery and recovery.
- Inventing new processes and tools to help support developers, testers and stakeholder to verify the application effectiveness. To promote these tools and practices, conducting one-to-one discussion and group seminars to showcase the power of using these tools.

Achievements

- Performance tuning of the existing application to consumer XML feed in efficient way using FASTERXML. Reduced the time to process the full XML based snapshot from 15 mins to 5 mins.
- Performance tuning of the green field consumer management application to expose the snapshot of the entire wagering data (800000 records) in 5 seconds using multi-threading.
- Separating the environment configuration information from the application and adapting the application to use ETCD for any dynamic configuration change
- Restructure the maven based projects to use master POM.
- Consolidating logs from different background application into LOGSTASH using ELK stack.
- Standardize the background application maintenance and management process by exposing different application level metrics, health information and maintenance tasks using Angular and bootstrap based UI.

Technologies: Spring-boot (AOP, ASYNC, CORE, SCHEDULER, BATCH, JDBC, ACTUATOR, INTEGRATION, REACTOR), RABBITMQ, Postgres, HAZELCAST Caching, REDIS, COMETD, XML, XSLT, XSD, Design Patterns, Linux, Shell Scripting, Spock, TESTNG, MOCKITO, POWERMOCK, NEWRELIC, STATSD, Metrics, Hibernate 4, REST Fuse, Reactor.io, Apache Storm, Trident, Storm-REDIS, ETCD, VERT.X, reactor.io, Apache Camel, SEDA Queues, Multi-threading, Batch processing, Vagrant, AWS, JIRA, Confluence, GitHub, Design Patterns, GITHUB, Docker, AWS, Puppet, YAML, LIQUI-base, H2DB, HQSQL, AngularJS, NODEJS, BOOTSTRAPJS

➤ Project BURRITO

Application is a re-engineering project to improve the performance of existing PHP application using in-memory data grid and reducing number of database call to MySQL DB. The existing solution was taking 4 minutes' process one update. I was asked to design a solution to improve upon the delay using in-memory database however making sure the application is highly available and scalable application to handle the load dynamically.

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

Responsibility

- Leading the team of 4 developers in implementing a high performance and highly available solution
- Implementing a micro-service architecture design balancing the trade-off between performance and space.
- Conducting workshops for the stack-holder to explain the application design and status of the projects
- Organizing training for the team to keep them motivated, simultaneously upgrading their skill to meet the changing need of the market.

Achievements

- Improved the performance from 4 minutes to process on market update to 52 milliseconds

➤ Project QUADDIE Cash-out

Application to provide QUADDIE customer to cash-out their winnings after 1 and 2 leg outcomes. The application provides the customer an ability to calculate cash-out offer, and then cash the winnings based on the offer provided. The application was divided into 3 main modules, cash-out offer calculator, cash-out offer accounting and cash-out offer reporting.

1. **Cash-out offer calculator** is used to calculate and offer based on the collation of the data provided from wagering mainframe and feed provider based on the cash-out business rules. This application was made using immutable maps as we have to reconcile lot of data to create an offer very fast (within 2 mins) keeping the memory footprint low.
2. **Cash-out Offer Accounting** is used to do the accounting of every QUADDIE bet and the cash-out offer made in the database. The application is acting as the intermediary to the calculator and reporting.
3. **Cash-out Reporting** is the reporting framework to generate feeds for external systems and reports for finance to do accounting. This application is built using spring-batch and custom framework based on builder and template pattern.

Responsibilities

- Responsible for the technical architecture of the project
- Providing technical guidance and responsible for the delivery of the project milestones
- Leading the team of 6 developers and managing stakeholder expectations
- Coordinating with SRO for the authentication and security requirement

➤ Project TAMALE

Application to expose the wagering feed to the consumers in asynchronous way. This application provides dynamic creation of consumers, maintaining the consumer session. Maintain the sanity of the wagering data by running schedule job to clean out expired data. Provide the functionality for the consumer to get the snapshot of wagering data. Provides a **Angular.js** UI to check the status of the application, invoke house-keeping job, create new consumers and audit the consumer transactions.

Also exposes a Java swing thin client application which is used by both testers and business to verify the data going through tamale.

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

Accomplishments

- Decreases the snapshot time for each consumer from 2 hours to 6 seconds for 1.7 million messages (5GB) of data.
- Decreases the snapshot time between wagering system and tamale from 8 hours to 1.5 hours for 1.7 million messages (5GB) of data
- No maintenance cost
- High throughput and performance

➢ Project Bettor-data Replacement

Application to consume huge volume of data from the betting feed provider converting them to a common business message then pushing these message based on the message priority to wagering system. The business entity represented by the message is completely trackable through-out the flow from the feed provider to the wagering system.

Accomplishments

- The most successful project in the TABCORP's history.
- Zero maintenance
- High performance, message is transferred from the feed provider to wagering system within 200ms.

Senior Software Developer **- Victoria University**	12/2013 – 05/2015

Worked on designing a reporting and batch job management portal using Angular.js. Playing the role of technical architect for back-end module and responsible for mentoring and deliveries of my sub-ordinates. Negotiating the requirement with business and preparing technical specifications. Worked on designing and developing, ESB and SOA based middle tier services and application for synchronizing the data between VUCM (CALLISTA) and VUC (D2L) portals using Mule ESB. Exposing these services using Spring REST API to front-end for university staff.

Technologies: Java 7, XML, XSLT, XSD, Design Patterns, Linux, Shell Scripting, J2EE, JUnit, Hibernate 4, Mule ESB, Web Services, REST Fuse, Jersey test, Soap UI, Mule Studio, VERT.X, MOCKITO, Power MOCKITO, Quartz Job Scheduler, Linux BASH shell, Ant, REST-full Web Service, Apache Tomcat 7, Agile Development TDDs, Groovy, Spring, XML, XSLT, Web Services

Responsibilities

- Taking the requirements in the form of functional specification from BAs
- Creating a technical specification document based on the functional specification
- Taking part in the review meeting for Functional and technical Specification
- Developing and writing the test cases in order to validate the requirement as per TDD agile development.
- Deploying the solution on the UAT and PROD environment.
- Supporting testing team to release the solution on time without bugs.
- Worked towards restructuring the development workspace to use maven.

Achievements

- Automated the testing of Jersey REST API using Jersey Test to reduce the manual effort involved in testing REST API using POSTMAN. The test harness will automatically will create

the test data, then test all the business logic and will remove the test data from the system. The manual process used to take 24 man hours to test all the test cases, after automation it takes only 30 minutes. The test harness is created using TESTNG and make use of grouping functionality to execute only desired set of test cases.

- Awarded a certificate of achievement toward the contributions made in release 5.1 restructuring of VU staff portal.

Lead Developer - **BLUEFLAG Pvt. Ltd.**	06/2013 – 12/2013

➢ **Bigdatr.com.au**

Played the role of technical architect and worked towards redesigning the web application to use ESB SOA in highly distributed development environment using Spring, Scala, Finagle, Zookeeper, Storm and Redis framework. Also worked on developing the front-end module to display user-friendly charts using Bootstrap, d3.js, backbone.js, handlebars.js.

Technologies: Java 7, XML, XSLT, XSD, Design Patterns, J2EE, Spring 3.1 (AOP, MVC, DAO, REST-ful services), Storm, Finagle, Junit, Zookeeper, MOCKITO, REDIS, Mongo DB, Aspect J, SVG, d3.js, Backbone.js, Lo-dash.js, Zookeeper, COBERTURA, Mongo UI, Maven, Bamboo, GIT Stash, IntelliJ, Microsoft Visio, UML, SCRUM, Apache Tomcat 7, Jetty

Responsibilities

- Research, Designing and developing high end Twitter Storm topologies for complex computations
- Research, Designed and developed API and framework for creating multiple instances of Twitter Finagle servers in a protocol independent manner.
- Research, Designing and developing API and framework for managing clusters and load balancing using Zookeeper. Using Junit and MOCKITO for unit testing the solutions.

Achievements

Restructured and migrated the system architecture to SOA, and improved the search functionality using STORM topologies. Previously the search functionality was developed in traditional single threaded model, using Twitter STORM, made the search multi-threaded to significantly reduce the turn-around time.

Software Consultant - **Dialog Information Technologies**	01/2013 – 06/2013

➢ **Bureau of Meteorology (Australian Government)**

The Bureau of Meteorology is Australia's national weather, climate and water agency. Its expertise and services assist Australians in dealing with the harsh realities of their natural environment, including drought, floods, fires, storms, tsunami and tropical cyclones. Through regular forecasts, warnings, monitoring and advice spanning the Australian region and Antarctic territory, the Bureau provides one of the most fundamental and widely used services of government.

Technologies: Java 7, J2EE, Spring 3.1 (AOP, MVC, DAO, REST), MySQL, Maven, Ant, Eclipse, MS Visio, UML, GIT, Active VOS, SOAPUI, Selenium Web Driver, Jenkins, SCRUM, Glassfish, Tomcat

Responsibilities

- Contributed in the designing and development of new enhancements.
- Creating High-level Design and Low-level design from the requirement gathered.

Achievements

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

Streamlining of the existing Active VOS work-flows and re-engineering the existing Selenium UI test cases to execute with the current UI. This significantly reduced the effort to manually test the UI.

➢ **Spatial Data-mart (Land Victoria)**

Spatial Data-mart is a web service application for data distribution. The easy to use system allows you to, search for your spatial data requirements, place orders online, keep track of orders and access orders, either emailed or downloadable depending on size.

Technologies: JSON, Java 7, Design Patterns, J2EE, Spring 3.1 (AOP, MVC, DAO), Hibernate 4.0, MS SQL Server 2008, Maven, Ant, Eclipse, Microsoft Visio, UML, SVN, Apache Tomcat 7

Responsibilities
- Creating High-level Design and Low-level design from the requirement gathered.
- Designing and development of the security roles, email client for public access user to download data.
- As a part of performance improvement, designed and developed a new Product Exclusion functionality to allow administrator to add remove products to download from FTP.
- Distribution of work within the team of 3 developers and integrating the their deliveries

Achievements
- Improved the performance of the data mart by buffering the most used data packets on a local FTP server instead of hitting the 3rd party data server. Thus, reducing the expensive call to the data server by 1/3rd and the wait time for most of the client from 12 hours to immediate download. This was done by implementing a middle ware table to identify the most popular data packet and then buffering the data packet of local FTP server.

➢ **Victoria Information Network for Emergencies (VINE)**

VINE is a mobile application developed for Fire service commission of Victoria. The mobile application is used to inform the user about the planning, sustaining and recovering from the emergencies, such as fire, flood, storm etc. in the state of Victoria.

Technologies: JSON, Java 7, JQuery, JQuery-mobile, OpenLayers.js, XML, XSLT, XSD, Design Patterns, J2EE, Spring 3.1 (AOP, MVC, DAO), Hibernate 4.0, AJAX, MS SQL Server 2008, Maven, Ant, Eclipse, Microsoft Visio, UML, SVN, SCRUM, Apache Tomcat 7

Responsibilities
- Contributed in the designing and development of the front end as well as back end modules.
- Creating High-level Design and Low-level design from the requirement gathered.
- Distribution of work within the team of 3 developers and integrating their deliveries

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➢ **Water Health Investment Planning (WHIP) - Melbourne Water**

WHIP is an application used to manage the 5 years financial plan for developing and maintenance of water bodies in and across Melbourne region. The application helps the user to plan and create the intents, project and targets with the help on maps.

Technologies: JSON, JPA, Java 7, JavaScript, XML, XSLT, XSD, GWT 2.4, J2EE, Spring 3.1 (AOP, MVC, DAO), Hibernate 4.0, AJAX, JQuery, Log4j 1.2.14, MS SQL Server 2008, Maven, Eclipse, SVN, SCRUM Agile, Geo Server 3.2.7, Apache Tomcat 7, IIS 7.5

Responsibilities

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

- Working on the client location for requirement gathering and coordination.
- Creating High-level Design and Low-level design from the requirement gathered.
- Involved in designing and development of the application.
- Designing and development of new requirements and modules
- Performance tuning of the application with respect to databases and java coding.
- Release management and application deployment coordinator

Achievements
- Implemented a excel reporting generating system, using Apache POI, which was highly scalable with respect to the excel format and data fetching mechanism. This system replaced the manual report generation mechanism and reduced the turnaround time from 8 man hours to 2 hours.

Senior Software Developer - **Sabre Travel Technologies**   03/2012 – 12/2012

➢ **Travelocity.com – Cruise Module (Travel Domain)**
Travelocity is an online travel portal for shopping and booking airline, hotel, and car and cruise line. Travelocity is the sixth largest travel agency -- booking $10.1 billion in travel worldwide in 2006. Based in Southlake, Texas, Travelocity has offices throughout the U.S. and also owns and operates Travelocity Business® for corporate travelers, lastminute.com, a leader in European online travel and ZUJI, a leader in Asia-Pacific online travel. Travelocity-Cruise module is specifically focused on shopping and booking cruises on different cruise lines such Oceania, Norwegian and many more.
Technologies: Java, JavaScript, XML, XSLT, XSD, Shell Scripts, PL-SQL, Action Scripts, J2EE, Spring 3.0 (AOP, MVC, DAO), Hibernate, Struts 1.x, AJAX, JQuery, Adobe Flex 3.0, Velocity DAO Templates, Blaze-ds, Maven, Ant, Eclipse, IntelliJ, JMETER, Bug-ZILLA, Cygwin, SQL Developer, Hudson, Build Environment, TOAD, Microsoft Visio, UML, Tortoise SVN and CVS, SCRUM Agile, Apache Tomcat 7
Responsibilities
- Acting as **module lead and POC** for following cruise systems and services
  - Configuration and Change management tool which is used to launch promotions and deals.
  - Cruise-services and schedulers are sub systems used to send email and process vendor data for different cruises they support.
- Mainly involved in client facing projects such as Royal Bank of Canada.
- Designing and development of new requirements and modules
- Training new resources on the application and project processes to bring them up to speed
- Develop and maintain structured code from technical specifications and requirements.
- Developing the High-level Design and Low-level design documents for the enhancement and getting it approved by the business analysts.
- Currently working 12.12 release enhancements related to Travelocity cruise module.
- Worked on performance tuning of the application with respect to databases and java coding.
- Code review for my peers and helping them in their deliveries
- Worked on localization and internationalization of the application.

Achievements

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

- Module lead of CCM tool, up-skilled myself in Adobe Flex and trained my peers on the Adobe Flex and CCM tool. Participated in Hack-a-thon, a 3-day event to develop Android mobile application for improving cruise customer satisfaction. The application was highly regarded by the panel and the idea was enhanced to include other lines of business.

Senior Software Engineer - **Manhattan Associates**	03/2010 – 03/2012

➢ **SCOPE Transport Life-cycle Management – Manual Consolidation Workspace (Supply Chain Management Domain)**

Manhattan Associates is a best-in-class global solutions provider for supply chain leaders—organizations intent on creating enduring market advantages by leveraging their supply chains. Transport Lifecycle Management module which is used to crate shipments out of orders, both automatically and manually. Manual Consolidation Workspace is used to manually plan the shipments.

Technologies: Java, JavaScript, XML, XSLT, XSD, UNIX Bash Shell, DB2 and PL-SQL, Python, J2EE, Struts 1.x, Spring 3.0, EJB 2.0, Design Patterns, JSF 1.0, AOP, Bing maps API, Design Patterns, UML, SAAS, JMS, JPROFILER, Log4j, Pref4j, TOAD, Maven, Ant, Eclipse, Clear Case, Clear Quest, StarTeam, Scrum Works, Maven, Ant, SCRUM Agile, JBOSS, Web-logic Application Server

Responsibilities
- Developing the High-level Design and Low-level design documents for the enhancement and getting it approved by the BA's.
- I was the part of Transport Lifecycle Management migration from JSF to Spring 2.0.
- Client delivery for Manual Consolidation Workspace module which was one of the best deliveries made to CNS and was highly appreciated by the client.
- Worked on performance tuning of the application with respect to databases and java coding.
- Code review for my peers and helping them in their deliveries
- Worked on localization and internationalization of the application

Achievements
- Client delivery for Manual Consolidation Workspace module, was one of the best deliveries made to CNS and was highly appreciated by the client.
- Created a Proof-of-concept for Automatic logging systems using AOP

Senior Technical Associate - **Tech Mahindra Limited**	03/2009 –03/2010

➢ **Phoenix – AT&T Services Inc. (Telecom Domain)**

Phoenix is a web application which is used by AT&T customer care representatives catering the small business customers, for their telecom products and services. The project was a CLIENT MANAGED PROJECT with daily status update and meetings.

Technologies: Java, JavaScript, XML, XSLT, XSD, UNIX Bash and KORN Shell, Oracle PL-SQL, Web-services, Struts 1.x, EJB 2.0, J2EE, Maven, Ant, Clear Case, Clear Quest, Design Patterns, UML, SOAP UI, Agile Test Drive Development, Web-logic Application Server

Responsibilities
- Conducting training for new resources on product and technical knowledge.

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

- Analyzing, designing, developing, unit testing and supporting the client application
- Attending and conducting the client and peer review meetings to ensure the quality of the product
- Documentation of the Design, Unit test plan and Code review documents
- Configured the local workspace for Phoenix Offshore team
- Configured the hot deployment for the application
- Configured the debug environment for the application
- Developed a automation BASH script to increase the productivity

Achievements

- Received ATT (Director IT) Client Appreciation for RPA 1006 Release
- Received 'Cookie' (COA) award for excellent work in Phoenix
- Configured the local workspace for Phoenix Offshore team
- Configured the hot deployment for the application
- Configured the debug environment for the application
- Developed an automation BASH script to increase the productivity

Senior Software Engineer **- CSC Private Ltd**	10/2006 – 03/2009

- ➢ **Life Underwriting System (LUS) – Allstate Insurance, Northbrook, USA (Underwriting Domain)**
- ➢ **Resource Management System (RMS)**

Achievements

- Developed 4 utilities, Admin2LUS, Primary Checks, App-online Verification and Final Action Status Print Creation
- Developed a SQL Stored Procedure based utility to fix 100 requirement clients
- Setting up the debugging environment for the existing system
- An annual cost saving of $78,650 using above utilities
- Awarded two Certificate Of Appreciation (COA) award for developing utilities and excellent work
- Awarded two BRAVO Award from the Client Manager (US, Allstate Insurance) for resolving a complex problem and Data Center Migration Project completion

Personal Projects

- ➢ **Personal Portfolio (here)**

The web application which gives a brief introduction about my 9 years of software development career. Have a look at codebase on GitHub.

Technologies: Spring REST, Mongo DB, Backbone.js, Handlebars.js, Underscore.js, Bootstrap.js, Tomcat GIT/GIT Hub, Maven, OPENSHIFT, HEROKU

- ➢ **Android Anti-theft Mobile Application with Social media integration**

A generic android application designed to track a mobile when the user is not able to locate it in his/her vicinity. The application is integrated with the social media sites such as Facebook, twitter etc. using mobile internet, in order to track the device location when in contingency.

Technologies: Java/J2EE, Android API 16, Android SQLite, Eclipse ADT, Android SDK, XML, Facebook

(Lets Linked-in, Check out My Portfolio, GIT-Hub)

API, Twitter API

➢ **Hack-a-thon – Roaming Gnome**

The application was an android based mobile application for assisting the Cruise customer by updating them about the events happening on the Cruise enjoying their vacation. The application gets periodic event information feeds (XML) from the 3rd party service called Aker.

Responsibilities: Requirement gathering, Analysis, Designing and developing the application

Technologies: Java/J2EE, Android API 16, Eclipse ADT, Android SDK, XML

Education

Masters of Information Technology (Distributed Computing) from Melbourne University	2018 (Currently pursuing)
Bachelor of Engineering (Computer Science)	2005

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