

ABHIGYAN MISRA

Email: abhigyanmisra@gmail.com

Phone: +1-972-800-4668



Specialties

Spring Boot, Microservices,
Machine Learning Models &
Implementations, Rest Services.
Business Rules Management
Systems,
Business Process Management
Simulation & Analytics
Big Data & Hadoop
Agile Development
Systems Architecture & Design
Application Development

Clients

Bank of America, Discover
Financials, Citibank,
Targobank, Amex, FICO,
JPMC, Humana, Kemper
Insurance, BNSF Railway

Education

Bachelors in Technology
(Electrical & Electronics)
Pursuing Masters in Data
Science

Certifications

AWS Certified Solutions
Architect(Associate)
Sun Certified Java Professional
(SCJP)
Pega Certified System Architect
(CSA)

Technical Skills

BRMS / BPMS Tools

FICO Blaze Advisor, Drools/
jBRMS, WODM/ILog, Pega
RPC, Alfresco Activiti

Programming Languages

Java / J2EE, Spring, SQL, Unix
Shell Scripting, Python, R

Summary

Hands on AWS Architect, Full Stack Developer, Data Scientist/Engineer with over 15 years of experience in analysis, design, development, testing and deployment of software applications across different domains - Banking, Credit Cards, Insurance, Healthcare, Retail etc.

- Providing end-to-end **implementations** for **Machine Learning Models** using H2O, Python and R
- Providing end-to-end technology solutions including requirements analysis, technology architecture, design, development, testing, simulation and Quality Assurance for various **Rules Based Systems**
- Experience in **Blaze Advisor Rules Engine 6.1/6.7/6.5/6.8/6.9/7.0/7.2/7.4, ILOG 7.0 / WODM 8.0, Drools 5.x,6.x/jBRMS 6.x, Pega RPC 5.x** and other **Rules Based Systems**.
- Experience in **AWS, Gaia, Big Data & Apache Hadoop**.
- Experience in developing **Machine Learning Models using Python and R**.
- Technical expertise in developing Client-Server, Web-Based, Cloud based and N-Tier applications
- Good experience with server-side programming and technologies such as J2EE, Servlets, JSP, Java Beans, JDBC, JNDI and EJB
- Expertise in developing web applications using Struts and Ajax frameworks.
- Experience in using **PCF, AWS EC2, AWS S3**, Weblogic application server, Websphere Application Server, Apache Tomcat, JBoss and Oracle Application servers
- Expertise in developing database applications using DB2, MySQL, Oracle, SQL Server.
- Experienced in IDE tools like Eclipse, RAD, MyEclipse, Blaze Advisor IDE, Visual Studio, Anaconda, PyCharm, Rstudio, Jupyter, SQL Developer, Heidi SQL.
- Good experience in configuration management tools including Github, AWS Commit, SVN, Tortoise CVS, Clear Case, TFS, RTC
- Experience in Shell Scripting, Python for packaging and deployment.
- Highly motivated and innovative problem solver with excellent organizational and communication skills.
- Performed lead, supportive and sharing roles with strong communicative and interpersonal skills in team-tasks
- Excellent analytical skills with ability to perform development tasks with minimal Supervision
- Excellent communication skills, quick learner, ability to work independently and in team.
- Excellent data visualization skills using Power BI, Tableau, R & Python

Employment History

Company	From	To
Discover Financial Services	Sep 2017	Present
Tata Consultancy Services	Oct 2015	Sep 2017
Bank of America	Jan 2013	Oct 2015
Syntel Ltd.	Jan 2011	Jan 2013
Nucleus Software	Nov 2008	Jan 2011
Elite Solutions	Oct 2007	Oct 2008
HCL	Aug 2006	Oct 2007

Professional Experience

Discover Financial Services

Lead Data Engineer

Mar 2019 - Current

Working with Data & Analytics Unit for Discover Personal Loans and Discover Student Loans. Role involves migrating current rules services on WAS to Spring boot based rules services and productionizing Machine Learning Models as spring boot microservices. Guiding the business and technology team to migrate the changes with least impact. Also working on adding multiple external vendor services (Clarity, LexisNexis, Credit Optics, Zest) to the current application for better decisions.

Roles & Responsibilities

- Design and Code for Rules Based Systems, RMA, FICO DMP
- Design and Implementation of Machine Learning Models
- Requirements Gathering & Analysis for micro services on cloud
- Building tools to streamline and reduce SLA's
- Technical/Peer Reviews, Architecture discussions
- Training & Resource Mentoring

Tools & Environments: Java / J2EE, Blaze Advisor 7.2, 7.4, Fico DMS, RMA, Jenkins, Github, Shell Scripting, Teradata, Oracle 12c, STS, Python, AWS Snowflake, Maria DB, Postgress, PCF Application Servers, AWS S3

Lead Implementation Specialist

Senior Associate - Decision Implementation

Sep 2017 - Mar 2019

Working with Discover Personal Loans and Discover Students Loan Business Unit. The role involves providing solutions for different Strategy Implementation for these two line of business, migration of code from Capstone to Blaze.

Roles & Responsibilities

- Design and Code for Rules Based Systems
- Requirements Gathering & Analysis for different pricing, risk, operations strategies implementations
- Building tools to streamline and reduce SLA's
- Technical/Peer Reviews, Architecture discussions
- Trainings & Resource Mentoring

Tools & Environments: Java / J2EE, Blaze Advisor 7.2, 7.4, Capstone, Jenkins, Github, Shell Scripting, Teradata, Oracle 12c

Tata Consultancy Services

Technical Lead - BPMS/BRMS

Oct 2015 - Sep 2017

As a part of BPMS/BRMS CoE, involved with multiple clients / teams across different domains. The role involves providing solutions and estimations for the projects, setting up best practice guidelines to be executed in the project, mentoring the team members on Rule Engine Solutions & Products.

Roles & Responsibilities

- Architect for Rules Based Systems
- Requirements Gathering & Analysis
- Solution Design & Estimation
- Technical Reviews
- Training & Resource Mentoring
- Laying out guidelines and best practices for Rule Engines
- Supporting Pre-Sales with POC and Accelerators

Tools & Environments: Java / J2EE, IBM WODM 8.x, FICO Blaze Advisor 6.x/7.x, JBoss Drools / jBRMS / BPMS

Bank of America

Analyst – Apps Programming

Jan 2013 – Oct 2015

As a part of Analytics and Business Intelligence Technologies Team involved in multiple Blaze Advisor / WODM Implementations across different domains and major releases. Involved in developing different products & POC's for the bank using different tools and technologies such as Blaze, WODM, Drools, Hadoop.

Some of the projects Implementations include:

C3PM – Core Credit Card Platform Modernizations

ICDP – Integrated Cards Decision Platform

CEH – Customer Events Hub

Some of the Tools & POC's developed include:

Customer Event Analytics – using WODM

Testing Framework using junit, BrUnit & Java/J2EE Technologies

Rules Governance framework over Standard Blaze, Drools and WODM Implementation

Template Generator for Blaze

Chat Text Analytics

Roles and Responsibilities

- Act as an architect for Rules Based Systems
- Migration of repositories from previous versions to current versions
- Requirements Analysis and Design
- Development of code from proof of concept to actual implementations
- Act as mentor to other team members for Rules Engine Products
- Code Review

Tools & Environments: Java/J2EE, Blaze Advisor 6.x/7.x, Drools 5.x, WODM 8.x, Eclipse, RAD, RTC, Websphere Application Server 7.x/8.x, DB2, XML, XSLT

Syntel Ltd.

Technical Lead

Jan 2011 – Jan 2013

As a part of Syntel – Center of Excellence team, required to lead various development projects on different BRMS tools specifically on Blaze Advisor Rule Engine (Java/.Net variant), WODM, ILOG & Drools.

Some of the Projects/Teams include:

- Humana Blaze Scrum Teams
- Humana - Assessment for Clinical BRMS
- Amex - Dispute Management System - POC
- Belk – Retail POC
- Kemper Insurance Projects Assessment
- Rule Documentation Tool
- Rules Migration Tool

Humana – Clinical Scrum Team

The project involves re-architecture the current Atlas Rule Engine application, which is used for making Clinical decisions for Humana. Re-architecture includes the changes for WCF rule service, Rule Engine Repository Structure, BOM design, A&A framework, BRMS Lifecycle etc.

Roles and Responsibilities

- Lead the team for Repository and BOM changes, Rule Service Analysis
- Requirements understanding and analysis
- Application Architecture & Design

Environments: .NET, SQL Server, Visual Studio, IIS, ASP, AJAX, Blaze Advisor 6.1/6.7 .NET

Humana - Assessment for Clinical BRMS

The project required to analyze and assess the current Humana Clinical Business Rules Management Systems (BRMS). The assessment included the Rules Repository Assessment, Rule Service Assessment, Business Rules Lifecycle Assessment, Business Object Model Assessment and Rules Maintenance Application Assessment. The goal of the project was to enhance and optimize the current Business Rules Management System for better performance and easy maintainability.

Roles and Responsibilities

- Lead the assessment team for Repository, Rule Service Analysis
- Requirements understanding and analysis
- Provided recommendations & Estimates for the Assessment
- Application Architecture & Design

Environments: .NET, SQL Server, Visual Studio, IIS, ASP, AJAX, Blaze Advisor 6.1/6.7 .NET

Amex - Dispute Management System

The project required to build a Rules Engine to act as a solution for Disputes Management of faulty credit card transactions. The rules engine was required to be deployed in z/OS and the rules service was to be accessed as a Web service.

Roles and Responsibilities

- Individual Contributor for Rules Engine Development
- Involved in design of Decision Center and Rules Execution Server.
- Provided recommendations on best approaches

Environments: Java , z/OS,Eclipse, Decision Center, WODM 8.0, Rules Studio

Retail POC for Belk

A Web based Point of Sales (POS) application was developed and integrated with Blaze Rules Service. The application was developed so as to prove the usability of BRMS system for the Retail Sector. The POS interacted with the BRMS system exposed as a web service to provide the discounts based on Retail Rules. The rules are entered through Rules Maintenance Application (RMA).

Roles and Responsibilities

- Lead the development of the Retail POS Application and BRMS
- Template Designing, Development of the RMA using Blaze Advisor IDE
- Integration of the POS with the BRMS
- Web services deployment of the BRMS
- Requirements Analysis
- Application Architecture & Design

Environments: Blaze Advisor 6.9, JBoss, Java / J2EE, Web Services, AJAX, SQL Server, Eclipse

Rule Documentation Tool / Rules Migration Tool

A Web based tool to act as Differentiator for all the clients which would be using a BRMS. The tool helps in creating documentation for Rules, in standard format, entered by the Business Analysis prior to start of any Rules Project. This helped in understanding the different type of Rules being used in the system during the requirements gathering phase. The documents generated by the tool acted as standard documents for Rules Sign-off prior to start of any Rules Project.

Rules Migration Tool was a web based application for migrating rules from one repository to other using Blaze API's. The tool was specifically built for Blaze Advisor Rules Repositories.

Roles and Responsibilities

- Lead the development of the Rule Documentation Tool / Migration Tool
- Requirements gathering and analysis
- GUI & Application Architecture designing
- Application Architecture & Design

Environments: Java / J2EE, SQL Server, Eclipse, JBoss, JSP, Javascript, PL/SQL

Nucleus Software

Nov 2008 – Jan 2011

Sr. Software Engineer

FinnOne Rule Engine: Allianz Bank, Malaysia

FinnOne Rule Engine was being built for decision making which was required to be integrated with already existing systems of Allianz Bank. This product was to be deployed as Web service and was to provide decisions for different product baskets (different loan plans) that could be offered to a customer based on the data available with the bank.

Roles and Responsibilities

- Team Lead for FinnOne Rule Engine Development, Implementation and Offshore Support Team
- Requirements gathering and analysis
- Support the Onshore Team in implementation and bug fixing
- Defining Packaging and Deployment processes of the Application.
- Integration testing of the Complete System/ Application after the deployment process.
- Technical Documentation

Environments: Java/J2EE, Web Services, Oracle Application Server, Oracle Database, Clear Case, Oracle JDeveloper, PL/SQL.

Client: Targobank - Germany

Project Description: An Expert System is being developed for Targobank Germany known as **Credit Decision Engine**. The aim of this system is to make decisions on behalf of Targobank so as to ease the process of granting loan to people. The system works in sync with EBS (Enhanced Banking System) modules, an already existing system throughout Targobank.

Major Modules in CDE

RTA (Rules Transaction Application) – A Online (MDB/EJB) application which responds to calls by OCI and processes the applications based on the decision points and the data being sent by OCI.

RMA (Rules Maintenance Application) – A web based application to maintain the rules for different decision points. The same sets of rules are then being used by the RTA to process different application which is fired from OCI.

Schufa Aggregation – A standalone java application which provides the aggregation scores back to OCI when OCI needs to calculate Schufa Aggregation scores for a set of data. The same aggregate scores are then used by the RTA to process the applications. The schufa score is similar to credit scores being used for loan calculations.

Batch Estimator – An application used to do regression testing based on the production data present in the database system

Onlinebatch – An application used to get the production application data present in the database on regular basis.

Transaction Viewer – An application for doing the unit testing of rules present in the RMA for different decision points.

Roles and Responsibilities

- Team Lead for all the Blaze Advisor Developments
- Maintenance of existing Application and development of new modules as per requirements.
- New Templates Designing, Development of the RMA using Blaze Advisor IDE
- Defining Packaging and Deployment processes of the Application.
- Testing of the Complete System/ Application after the deployment process.
- Shell scripting for backup and NDM transfer of files from Mainframe to EDW environments
- Technical Documentation
- Other responsibilities included client interaction, bug fixing and coordination with different teams as well for successful completion of the project.

Environments: Java/J2EE, Blaze Advisor 6.5 / 6.8, Websphere 6.1, RMA, EJB, MDB, MQ Series, IBM RAD 7.0, Clear Case, Unix, DB2, HP Quality Center, SARA Ticket.

Client: Citibank - Germany

Project Description: An Expert System is being developed for Citibank Germany known as **Credit Decision Engine**. The aim of this system is to make decisions on behalf of Citibank so as to ease the process of granting

loan to people. The system works in sync with OCI (Oscar Credit Initiation), an already existing system throughout Citibank.

Below are the different modules in this CDE System

RTA (Rules Transaction Application) – A Online (MDB/EJB) application which responds to calls by OCI and processes the applications based on the decision points and the data being sent by OCI.

RMA (Rules Maintenance Application) – A web based application to maintain the rules for different decision points. The same sets of rules are then being used by the RTA to process different application which is fired from OCI.

Schufa Aggregation – A standalone java application which provides the aggregate scores back to OCI when OCI needs to calculate Schufa Aggregation scores for a set of data. The same aggregate scores are then used by the RTA to process the applications

Batch Estimator – An application used to do regression testing based on the production data present in the database system

Onlinebatch – An application used to get the production application data present in the database on regular basis.

Transaction Viewer – An application for doing the unit testing of rules present in the RMA for different decision points.

Roles and Responsibilities

- Maintenance of existing Application and development of new modules as per requirements.
- Template Designing, Development of the RMA using Blaze Advisor IDE
- Packaging and Deployment of the Application.
- Testing of the Complete System/ Application after the deployment process.
- Shell scripting for backup and NDM transfer of files from Mainframe to EDW environments
- Technical Documentation
- Server Administration for the RND servers
- Other responsibilities included client interaction, bug fixing and coordination with different teams as well for successful completion of the project.

Environments: Java/J2EE, Blaze Advisor 6.5, Websphere 6.1, RMA, EJB, MDB, MQ Series, IBM RAD 6.0, Unix, DB2, HP Quality Center, INFOMAN, Virtual Ticket.

Elite Solutions

Oct 2007 – Oct 2008

Software Engineer

A2Z Solutions, Austin, TX

Project Description: A Web based application was being developed for Time Sheet Management, Reporting and Payroll Management where Clients could create accounts for their companies and can process the time sheets and payroll for their employees. This would be a Single Client User as well as Multi Client User system depending on the requirement of the client. The Multi user system would be subscription based where clients could subscribe on monthly or yearly basis. The single user system would be available to clients and would be further customized according to their particular needs. Both the system would be generating a report based on the user's requirements.

Roles and Responsibilities

- Template Designing, Development and Testing of the System
- Flow design for the application.
- Functional, Regression and Integration Testing of the Application
- Technical Documentation of the test plans and results.
- JUnit Testing of the application
- Server Administration
- Developing test data for the System using MySQL
- Other responsibilities included client interaction, requirements gathering and analysis for other clients.
- Offshore Team Management

Environments: Java, J2EE, JSP, JDBC, JUnit, Struts, Hibernate, MySQL, Eclipse IDE, JBoss, Web services.

FAIR ISAAC CORPORATION(FICO)

Client: Dell, Austin, TX

Project Description: An Expert System was being developed for Dell known as **Customer Support Issue Resolution System**. It is a Rules Based System developed to reach to a solution based on already written rules in the Rules Repository. The Rules are being created and edited by the Rules Maintenance Application, which has been generated and customized using Blaze Advisor. The user interacts with the system using a GUI that interacts with Rules Engine and the Database, which has all the information of its products and asks the questions based on those facts. In this project my job involved preparing the Test Bed, Rules Authoring in the RMA, and Integration Testing of the final product.

Roles and Responsibilities

- Developing test data for the CSIRS using Oracle DB
- Rules Development using Blaze Advisor
- Testing of the Rules Maintenance Application being generated from Blaze Rules Engine
- Functional, Regression and Integration Testing of the Rules Maintenance Application and UI of the Customer Support Issue Resolution System
- Web services deployment of Rules on Weblogic.
- Technical Documentation of the test plans and results.
- Server Administration

Environments: Java, J2EE, JSP, JDBC, JUnit, Oracle, Fair Isaac Blaze Advisor 6.5 and Rules Maintenance Application, HP Quality Center (Mercury Test Director), Web Services, Weblogic Server.

HCL Technologies
Software Test Engineer

Aug 2006 - Oct 2007

Network Availability Test Automation:

Project Description: This was an in house software project at HCL to create a distributed software test tool to automate the availability, performance testing, scalability, and functional testing of network devices. It provided a simple CLI to configure custom automated test scenarios and analyze test results. It tests hardware, through wire-speed traffic generation, filtering, capturing, and statistics collection. Test results are collected and presented in a spreadsheet with a detailed post-test analysis, color-coded indications of test trial pass/fail outcome, and detailed test execution logs.

Responsibilities:

Lead a testing team of 5 members, involved in verifying the bug fixes done by the development team and certifying releases. My role involved understanding the features and related bugs, preparing test plan for the bug fixes, resource management, test bed setup, testing for bugs, running regression and load tests, defect tracking, preparing test reports, test validation and verification.

Tests involved configuring different Cisco Routers and other devices to simulate the environments for the test plan. The test bed preparation involved configuration of various components of the software by simulating the network configurations. Automated various test scenarios using Perl.

Environment: Windows, Cisco Routers & Switches, Java, JUnit, Shell Scripting, Service IT Ticketing Tool, Smart Service Desk, Ethereal Sniffers

Cisco TAC/NOC Engineer

Lead the Cisco TAC Level 2 Escalation team and our team was focused on testing consumer line of products like Routers and Switches. Primary responsibility involved leading the team in India, supporting Cisco Systems in development testing, setting up device testing lab network, build regression test bed and test automation. I was working offshore for various HCL Clients in India to troubleshoot and test their networks for any irregularities. These experiences helped me in leading the team, designing a lab network and helped me in working more efficiently on other projects.

Responsibilities: Lead a technical support team of 15 members and coordinating with the field technicians for implementation and testing the networks of HCL Clients. Simulating the client's network in our lab environment and then testing the performance of the network under various constraints. My job involved writing and execution of test plan, conducting test plan review, testing schedule and team management. Interoperability,

Bench Marking, performance, stress testing for Network Devices. Design and execute functional and black box test plan and test procedure for ICMP messages, Multicast and 802.1Q (VLAN). Functional testing of routing protocols (OSPF, BGP, and RIP).

Environment: HP Open view, Net Console, Service IT Ticketing Tool, Cisco Routers and switches, Wireless Access Points and IP Phones, Linksys Switches and Wireless Access Points, Netgear Switches, Ethereal Sniffer

Infinity Ventures Pvt. Ltd.

Dec 2004 - Aug 2006

Software Quality Analyst - Part Time

Worked as a Web developer and Software QA Engineer. Here my job was to design new websites for several clients and test their functionalities. I was required to interact with clients for requirements gathering and analysis.

Developed multiple projects which included web portals, Os-commerce websites, Time-sheet application.

Developed report generation tool using the trouble ticketing (Jtrac) and a Time Sheet Application.

These projects involved programming skills in various technologies.

Roles and Responsibilities

- Application Development
- Create and validate test cases and test data from test plans.
- Track and communicate test plans, test results, analysis to the customer
- Test Strategy Definition, Test Planning, Test Execution, Defect tracking.
- Testing Web based applications (GUI testing)
- Website Design and development using different tools and technologies.
- Technical documentation

Clients: Megastar Telecommunications, Simba LLC, Subway, Aar Ess Exim, Direcway, PEC Ltd

Environment: Unix, Windows 95/98/XP, Wireless Access Points, IP Phones, and DSL/Cable modems, Eclipse, Macromedia Dreamweaver, Fireworks, Adobe PhotoShop, HTML, PHP, Perl, C, C++, Java, JSP, SQL, Joomla, Wordpress, Zencart, Oscommerce, VirtueMart

Internships

Research, Designs & Standards Organization

Jun 2005 - Jul 2005

Software Engineer Trainee

Research, Designs & Standards Organization (R.D.S.O) is an organization under Ministry of Railways; Govt. of India and is involved in all types of researches and standardization being done to improve the railway operations

- Helped the team in the programming of various instruments and devices being used by the Indian Railways for providing safe and comfortable journey to its passengers
- Attended the training about the networking of the communication media being used by the Indian Railways
- Presented a seminar and report on the Internship experience at the college

Infinity Ventures Pvt. Ltd.

Jul 2004 - Aug 2004

Software Engineer Trainee

- Underwent my practical training during the course of my Engineering studies, at Infinity Ventures (India) Limited. The focus of the training was on understanding their network operations
- Gone through the training program for the VSAT network operations of Megastar Telecommunications NOC
- This training program developed my interest in Networking Field and prepared me for a future in this field