**Sourav Basu**

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**SUMMARY OF QUALIFICATIONS**

* A senior **Java/JEE/Mobile Programmer** with around nineyears of IT experience in Application Development, Object Oriented Programming, Internet and Intranet based distributed applications.
* Experience in complete **SDLC** (Analysis, Design, Development, Testing, Deployment and Support) and iterative **Agile** development.
* Experience in developing banking software tools for **Prime Brokerage**, **Risk** **Hedging**, **FAS133 Accounting**, **Equities**, **Fixed Income** and **Lending** business areas.
* Extensive experience in design and architecture of **J2EE** based applications and distributed frameworks.
* Extensive experience in using **Java 5/6/7**, **Spring** framework, **Struts 1.2/2, Servlets, GWT** and **JSP.**
* Familiar with **Grid/Cloud** **Computing** tools including **Globus Toolkit , Condor, Hudson, EC2.**
* Designed and modeled multi-tiered system architectures utilizing J2EE **design patterns** and UML.
* Expert level skills in **J2EE** stack (**EJB**, **Servlets**, **JSPs**, **JDBC**, **RMI**) technologies.
* Experience in using **Hibernate 3.5/JPA** for Object Relational Mapping.
* Proven experience in **SOA** using **Web services (Axis/RESTful)** and **IBM** **MQSeries/Tibco RV** as middleware.
* Expertise in **XML,** SAX, DOM, XSLT, **XPath**/XQuery, JAXB, Custom Tags, **AJAX,** JavaScript, JSON, HTML, CSS and DHTML.
* Extensive development work on **IBM WebSphere** **5.x**, **BEA WebLogic 10.x** and **JBoss** application servers and **Tomcat 6.x** web server.
* Extensive knowledge working with **WSAD5.x, MyEclipse 3.x, Eclipse** and **NetBeans** IDEs.
* Extensive experience in data modeling and migration in **DB2, Sybase, MS SQL Server, Oracle 10**
* Extensive development and administration in **UNIX/Linux** using **Shell (BASH/KSH),** **Perl** and **Python** programming.
* Expert at bringing clarity and ease-of-use to complex systems and developing guidelines and frameworks for system development.
* Excellent communication and interpersonal skills and at ease in analyzing Business and Functional requirements.
* A very good team player with the ability to work independently.
* Knowledge of mobile app development using **Android Dev Kit.** Published app in market: <https://play.google.com/store/apps/details?id=com.justbytes.itechquiz>

**EDUCATION**

* **Masters in Computer Science Western Kentucky University, Bowling Green, KY**
* **Grid Computing Post Bac Course University of North Carolina, Charlotte, NC**
* **Bachelors in Computer Science JNT University, Hyderabad, INDIA**
* **Pursuing MBA degree University of Massachusetts, Amherst**

**CERTIFICATIONS**

* Sun Certified Programmer for the Java 2 Platform, Standard Edition 1.4(CX-310-035)
* Sun Certified Web Component Developer for the Java 2 Platform, Enterprise Edition 1.4 (CX-310-081)
* IBM Certified Database Associate for DB2 v8.1

TECHNICAL EXPERTISE

Languages/Frameworks: Java 5/6/7, JEE 5, Servlets, JSP, EJB 3.0, JMS, Struts 1.2/2, Hibernate 3.5, Spring 3.0, JSF, GWT-Ext, SQLJ, MQ Series, TibcoRV, JAXP, JAXB, RMI, JMX, UML, PHP, PL/SQL, Perl, Python, Bean Shell, UNIX Shell Scripting, AWK, Castor, Apache POI, C, C#, Hadoop, Android, Google App Engine.

Tools :JUnit, TestNG, JMeter, Fitnesse, jBPM, ANT, Maven 2, Log4J, Autosys, Omegamon, Enterprise Architect, Actuate eRD Pro 8.0, Rational Rose, CVS, SVN, Perforce, JProfiler 4.1, SoapUI, Drools, Sonic MQ, PVCS, Quartz, Mercury Quality Center, Cruise Control, Hudson/Jenkins, Globus Toolkit 4, Condor.

**Internet Technologies :** JavaScript, AJAX, Web Services (SOAP/Axis), XML (SAX/DOM), XSD, XPath/XQuery, XSLT, JSTL, HTML, DHTML, CSS, JSON, jQuery.

**Patterns :** Singleton, Factory, Strategy, View Helper, Front Controller, Session

Façade, MVC, Proxy, Template, Adapter, Decorator.

**Databases :** DB2, Oracle 10g, Sybase 11.9, MySQL, SQL Server, SQLite

Application Servers : IBM WebSphere 5.x, BEA WebLogic 7/8.1/9, JBoss 4.x.

**Web Servers/Container:** iPlanet, Tomcat 6.x, Apache.

**IDEs :** Eclipse 3.0, IBM WSAD 5/4.x, NetBeans 7, MyEclipse 3.x, BEA Weblogic Workshop, XML Spy, TOAD, SQuirreL, Aqua Data Studio, DBArtisan, Text Pad.

**Operating Systems :** Linux, UNIX, Mainframe z/OS, and Windows NT.

**PROFESSIONAL EXPERIENCE**

***Bank of America Apr 2010 – till date***

***Project: Corporate Investments Hedge Management System***

***Title: VP, Apps Programmer Consultant***

**Environment:** Java 6, Spring 3.0, Hibernate 3.5, Struts 1.2, C#, Ajax, JSP, SVG, XPath/XQuery, DOM, JMX, Weblogic 10, iPlanet, Axis2 web services, Soap UI, Tibco RV, Quartz Scheduler, Autosys, Maven2, Hudson/Jenkins, Perforce Version Control, JProfiler, Apache POI,Enterprise Architect, Aqua Data Studio, TestNG, Log4J, Netbeans 7, Python, SQL Server, Oracle 10g, Sun Solaris, BASH/Perl scripting, GDA/IRToolkit Math Library, Agile methodology.

**Description:**

The *Corporate Investments Hedge Management System (CI-HMS)* enables the Corporate Investments Front Office , Middle Office , and Treasury to strategize and report on hedging of **fixed income** and **debt** instruments in the ALM portfolio in accordance with the **FAS 133** accounting standard.The *CI-HMS* application enables users to view daily capacity reporting, perform upfront and ongoing effectiveness testing, and hedge debts(**Callable/Non-Callable bonds)** with derivative instruments (viz. **Fixed Float/Basis/FX/Interest Rate Swaps,Swaptions,Caps,Floors** etc.)

This application is a 3-tier system with Struts/SVG/JSP composing the presentation tier. Trades are sourced from **VMaster**/**Advantage** via RV and are STPed into the system. Market **Curves** and scenario shocks are retrieved via web service.**MTM** and **accruals** are valued overnight for 30yr future forecasting using numerous market curves in a server farm using Hudson to distribute the work. **Risk** and **amortization** calculations are posted to ledger system, **FinMan**. Report generation/Data Extraction/Jobs are scheduled using **Quartz** and Autosys.

* Designed and developed solutions for initiatives and BAU projects.
* Involved in refactoring of the application using **Spring** and **Maven.**
* Coordinated and led migration of application database to **Oracle** from SQL Server.
* Coordinated migration of trade source system to **VMaster** and **GDA** as quant library for valuations.
* Converted memory and time intensive jobs to run on a distributed cluster of server farm using **Hudson**’s master/slave service.
* Developed **WCF** services in C# for Quant valuations and corresponding **Axis2** client.
* Used **Hibernate** criteria for retrieval of data and implemented table-per-subclass strategy.
* Developed PnL valuation POC in **Python/Quartz**.
* Developed SQL views and SPs for daily/monthly snapshots of data.
* Used **Design Patterns** like **Proxy, Singleton, Factory, Strategy, DAO, Interceptor, Business Delegate, and MVC**.
* Wrote **BASH/Perl scripts** for reconciliation, data extraction and migration tasks.
* Involved in 24x7 **production support** and issue resolution.
* Mentored and led on/offshore QA/development team.

**BNP Paribas *Oct 2009 – Apr 2010***

**Project: Lynx (Prime Brokerage Operations)**

**Title: Senior Developer**

**Environment:** Java 5, Spring 3.0, Hibernate 3.0, GWT-Ext, Tibco RV, RMI, Perl, BASH, Sybase, Unix(Solaris), Tomcat 5, Autosys, Maven, SVN, Aqua Data Studio, Log4J,Eclipse 3.6, Cygwin.

**Description:**

Lynx is a suite of applications that is designed to streamline PB Operational processing including Stock deliveries, Cash Wire Processing and MMF processing. Lynx interfaces with source systems like **BPS/A** (**Broadridge**) and **Falcon** to get the SOD settlement requests. After identifying Receives and Delivers, Lynx sends out **SWIFT** messages to BONY and GLOSS for settlement and performs matching of the responses. Money Market Fund redemption process allows reps to enter wires for funds which are then booked as journals to **ADP** upon a confirm.

The application GUI is built in GWT-Ext with Spring and Hibernate. Perl and Java based standalone jobs are run through Autosys as part of the daily/nightly batch.

* Involved in analysis, design, development, UAT phases of Fails/MMF modules.
* Used **GWT Ext** to design and develop Trade Entry and Reporting screens.
* Developed state based settlement processing using OS Workflow.
* Developed **Perl** scripts for watching/loading Falcon file feeds into DB.
* Developed **Tibco RV** wrapper for multicasting journals across the floor.
* Wrote **SQL** stored procedure to extract MMF data from upstream systems (BPSA).
* Used **Design Patterns** like **Singleton, Proxy, Business Delegate, Service Activator, and MVC**.
* Involved in 24x7 production support and issue resolution.

***Bank of America Aug 2008 – Oct 2009***

***Project: Corporate Investments Hedge Management System***

***Title: Senior Developer***

**Environment:** Java 5, Hibernate 3.0, Struts 1.2, JSF, Ajax, JSP, SVG, XPath/XQuery, DOM, RMI, JMX, Weblogic 10, iPlanet, Apache Axis, Soap UI, Tibco RV, Sonic MQ, Quartz Scheduler, Autosys, Perforce Version Control, JProfiler, Apache POI,Enterprise Architect, Aqua Data Studio, Mercury Quality Center,Cruise Control,TestNG, Log4J, MyEclipse 3.3, BASH, Perl, SQL Server, Sun Solaris, Java Service Wrapper, IRToolkit Math Library, Iterative Agile process, JIRA.

**Description:**

The *Corporate Investments Hedge Management System (CI-HMS)* enables the Corporate Investments Front Office , Middle Office , and Treasury to strategize and report on hedging of fixed income and debt instruments in the ALM portfolio in accordance with the **FAS 133** accounting standard.The *CI-HMS* application enables users to view daily capacity reporting, perform upfront and ongoing effectiveness testing, and hedge debts(**Callable/Non-Callable bonds)** with derivative instruments (viz. **Fixed Float/Basis/FX/Interest Rate Swaps,Swaptions,Caps,Floors** etc.)

The application can be thought of as a 3-tier system with Struts/SVG/JSP composing the presentation tier.RMI via **Spring remoting** is used to communicate to 2 modules viz.**CashFlow** and **FairValue**.Trades flow in from **Advantage** via RV and **Curves** via web service and are STPed into the CIHMS system, which are then tested for effectiveness and hedged accordingly.**MTM** and **accruals** are valuated overnight for 30yr future forecasting using numerous market curves in load balanced distributed machines. **Risk** and **amortization** calculations are posted to ledger system, **Computron,** via MQ.Report generation/Data Extraction/Jobs are scheduled using **Quartz** and Autosys.

* Involved in data modeling and redesign of application.
* Involved in data migration and upfront testing as part of **Merrill Lynch** transition.
* Used **Struts tag libraries** in JSPs and **Ajax** to retrieve debt/derivative information.
* Developed **JSF** based prototypes for application redesign.
* Improved performance of memory/time intensive jobs by load balancing across machines and multi threading.
* Created **Web Service** using **Axis** to provide effectiveness and valuation data.
* Developed messaging and job scheduler utility frameworks using **JMS** and **Quartz** respectively.
* Used **Hibernate** criteria for retrieval of data and implemented table-per-subclass strategy.
* Developed SQL views and SPs for daily/monthly snapshots of data.
* Used **Design Patterns** like **Proxy, Singleton, Factory, Strategy, DAO, Interceptor, Business Delegate, and MVC**.
* Wrote **BASH/Perl scripts** for reconciliation, data extraction and migration tasks.
* Involved in 24x7 **production support** and issue resolution.

***Goldman Sachs Apr 2007 – Aug 2008***

***Project: Derivatives Prime Brokerage/Web Payment Entry***

***Title: Senior Developer***

**Environment:** Java 5, J2EE 1.3,Spring 2.0, Hibernate 3.0, Ajax, JSP, HTML,CSS,JSON, DOM, Castor(JAXB), Tibco RV,RMI, JMX, Bean Shell, Sybase, DB2 UDB, Web Services(SOAP), Linux, Tomcat 5, Apache Web Server, Autosys, JMeter, ANT, CVS, JConsole, Aqua Data Studio,Log4J,Eclipse 3.0,Perl, KSH.

**Description:**

Web Payment Entry (**WPE**) is a web based system which allows **Prime Brokerage(PB)** clients to enter payments directly without having to liaise with the PB Payments team.PB clients can enter/receive payments ,setup instruction templates for wire transfers,and transfer cash journals on third party or non-third party accounts.Method of transfers supported are web,file upload, FTP, SWIFT.WPE interfaces with **MPRS** and **GTOS** to finally wire in/out money from the firm treasury.

Derivatives Prime Brokerage(**DPB**) statement generation provides end-of-day/month-end reports for all **FXPB** clients.DPB statement shows summarized/individual values of net **PNL**,Cash on Hand,Realized/Unrealized gain/loss values of **FX Trades**,**FX** **Options**,**NDFs**, and Collateral Position/Balances/Activity involved in a fund. Reports are run as part of EOD batch run and hosted in PB portal for each client.

* Involved in analysis, design, development, UAT and production phases of the application.
* Used **Spring** **MVC** (Interceptor/Controller) to design and develop WPE presentation tier.
* Used **Javascript/CSS/HTML** to design screens and **Ajax/JSON/Castor** to refresh payment approval updates sent as XML from backend.
* Developed **RMI** interface for WPE file upload.
* Used **Spring** support for **Hibernate** for all WPE CRUD operations and made use of **second** **level caching** for demographic information.
* Developed **Web Service** using **SOAP** to retrieve bank information for WPE beneficiaries.
* Wrote **SQL** scripts/stored procedure to extract **FX position/activity/options** data from upstream systems.
* Implemented **multithreaded Java** file watcher and processor for processing FX data using Java 5 **concurrency** support.
* Used **Design Patterns** like **Singleton, Proxy, Decorator, Adaptor, Session Façade, DAO, Service Locator, Business Delegate, Service Activator, and MVC**.
* Wrote **KSH/Perl scripts** for data retrieval/manipulation/process invocation.
* Involved in 24x7 **production support** and issue resolution.

***Citi Group, Warren, NJ Dec 2005 – Apr 2007***

***Project: Sapphire/Benefit Access***

***Title: Programmer Analyst***

**Environment:** Java 1.4, J2EE 1.3, Hibernate 3.0, Struts 1.2, EJB, JSP, MQSeries 5.3(JMS/base Java), SQLJ, DB2, WebSphere 5.0 Application Server, Actuate 8 Reporting, Mainframe, UNIX, Autosys, Omegamon, Xerces, ANT, WSAD 5.1, Merant PVCS, JUnit, AQT for DB2, Sun Solaris, Sun Ultra Server, Siteminder.

**Description:**

SAPPHIRE is a Web Based system available to Stock Plan Administration users on the **Salomon Smith Barney** Intranet platform. The application was to provide the Stock Plan Services (SPS) client managers, Financial Advisors and implementation teams a robust, scalable and functionally rich platform to service the Total Administration client base of SPS.

The Project SAPPHIRE could be visualized as consisting of the following key components.

1. Stock Option Administration and Record Keeping

2. Back Office Operations

3. Interface with Trading Systems

This is an n-tier application. Presentation layer interacts with Siteminder and CitiSafe to authenticate users. Interfaces with the Actuate Report Server to produce and display reports. Interface with other systems (**Benefit Access**) will be in the form of MQ Messages.

Benefit Access offers a suite of online applications designed to help monitor and manage an employee's benefit, compensation and/or equity based plans through the Internet. It provides multiple products like Stock Option/Purchase Plan, Restricted Stock, College Savings, and Retirement Plan.

* Involved in analysis, design, development, UAT and production phases of the application.
* Implemented **MQ SSL**, encrypting all channels being used and **MQ fingerprinting** for database optimization.
* Involved in datacenter chargeback **optimization** for batch/online/reports MIPS consumption on **z/OS**. Monitored using **Omegamon**.
* Rewrote legacy modules using **Hibernate/JMS** API.
* Developed **Stateless Session Beans**, which support the GUI for retrieving and updating the data.
* Used **Design Patterns** like **Singleton, Session Façade, DAO, Service Locator, Business Delegate, Service Activator, and MVC**.
* Developed the **GUI** module using **Struts** **Framework**, **Tiles**, **JSP,** HTML, DHTML and JavaScript.
* Developed stored procedures (**SQLJ/SQL**) for batch process and report generation.
* Wrote shell/ANT build scripts for cron/build/Autosys tasks/jobs.

**Credit Suisse *Sep 2004 – Dec 2005***

**Project: Credit Risk Aggregator**

**Title: Senior Developer**

**Environment:** Java 1.4,J2EE 1.3, JSP,Servlets, EJB, Struts 1.1, Hibernate 2.0,JAXP,Xerces,

JMS, Oracle 9i, SQL/PLSQL, ClearCase, Rational Rose, Log4j 1.2, JUnit 3.8, ANT, WebLogic 8.1, UNIX, TOAD, MyEclipse 3.8.

**Description:**

This application is used to consolidate, transform data from various internal lending sources, and calculate **Credit Risk (Notional Exposure)** used by the PE engine which aggregates Potential Exposure**. Risk Managers, Collateral Managers** and **Account Managers** use this application to analyze the Risk Exposure of the bank in various lending activities.

Daily feeds from various internal sources are sent to the Credit Risk Aggregator servers which are grabbed by the application and performs initialization tasks and sends a JMS message which invokes an ETL tool to load the feeds into database. Calculation Engine calculates risk exposure, which retrieves **FX rates** from Bloomberg to provide the Risk Exposure in USD. This application also provides a GUI to View, Search, Modify data and Rerun calculation.

* Involved in analysis, design, development, UAT and production phases of the application.
* Developed application flows and **UML** diagrams for some modules of the application.
* Developed **Message Driven Beans**, which inform other applications of events involving the feeds **ex**. Data loaded for a COB date.
* Developed packages, stored procedures for pre-processing and post-processing calculations.
* Developed **Stateless Session Beans**, which support the GUI for retrieving and updating the data.
* Used **Design Patterns** like **Singleton, Façade, DAO, Service Locator, Business Delegate, Service Activator, Transfer Objects, and MVC**.
* Developed the **GUI** module using **Struts** **Framework**, **Tiles**, **JSP,** HTML, DHTML and JavaScript.
* **Deployed the application on Weblogic 8.1.**

**OTHER ACTIVITIES**

***ITechQuiz***

***Android App***

**Environment:** Java, Android Dev Kit, SQLite, JSON, GCM/C2DM, Google App Engine, Python, Bottle

**Description:**

Designed and developed a free educational Android app providing categorized question/answers from Java/JEE, Struts, Spring, Hibernate, UNIX, and .NET. Added capabilities to retrieve additional questions from remote server in JSON format and copy over to local SQLite database. App allows push notifications using Google Cloud Messaging when user posts questions. App published in Playstore @:

<https://play.google.com/store/apps/details?id=com.justbytes.itechquiz>