# Pankaj Kumar

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## **Personal Summary**

* Passionate technologist and architect with over 18 years of experience in software development

with strong technical architecture expertise and exposure to SOA, Decision Modeling, BPM and workflow solutions

* Possess knowledge of current and emerging technologies (PaaS/SaaS eg. Cloud Foundry and/or on AWS (EC2, S3, RDS etc), SAML, OAuth, Hadoop, noSQL(mongoDb etc.) to identify innovative technical solutions for business needs.
* Strong business and technical skills that enable me to skillfully translate business requirements to software solutions.
* Fast learner and excellent mentor – very good at team development and increasing organizational effectiveness.
* Conversant with architecture frameworks like Zachman and TOGAF certified.

## **Technical Skills**

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| --- | --- |
| **Programming** | Java, J2EE, EJB 3.x, Servlets, Web Services, Struts, JSP/JSF, JDBC, XML, XSLT, XSD, XPATH, Swing, Log4j, Ant, AJAX, GWT, JQuery, JUnit, JMS, Python, Ruby on Rails, PHP, C, C++, C#,.VB.Net, Android |
| **Other APIs/ Frameworks** | Hibernate, Spring (MVC, AOP, WebFlow et. al.), Struts, Tiles, JMS, MQ, Cobertura, ANT, JMock, Mockito, JSF, TIBCO In-Concert, Business Works 5, Introscope, SOA, Mule ESB, SOAP and RESTful Web Services (JAX-RS) |
| **Methodologies** | SDLC, Waterfall, AGILE, Scrum, TDD. |
| **RDBMS/Database Related** | Oracle 9i/10g/11, PL/SQL, DB2, SQL Express 2005, SQL, MySQL, Sybase, HQL, Couchbase, **MongoDB**, Hadoop, HBase, Hive. |
| **Web/Application Servers** | WebSphere Application Server, Tomcat , Jetty, WebLogic, JBoss AS, IIS, Apache Httpd. |
| **Development and Build Tools** | IBM RAD 7.1, WebLogic 11.x, JDeveloper, Eclipse, NetBeans, TIBCO, Dreamweaver, Oracle Apps , Lotus Notes, Ant, Maven, Gradle,Ivy, Hudson/Jenkin, Anthill. |
| **Design/Architect** | UML, Design Patterns, Use cases, RUP, Enterprise Architecture |
| **Security** | SAML, OAuth, OpenID. |
| **Version Control** | SVN, Git, CVS, PVCS, Rational Clearcase |
| **Web Technologies** | HTML5, DHTML, XML, XSLT, XPATH, Java Script, CSS3, JQuery Mobile, Angular JS, Backbone, Bootstrap. |

## **Education**

* Master of Computer Application: Thapar Institute of Engineering & Technology (1989), Patiala, India.
* Bachelor of Sciences: Punjab University, Chandigarh, India
* **Project Management Professional** (**PMP**, # 306617), 2005.
* The Open Group Architecture Framework(**TOGAF** v9.1, # 93795)

## **Professional Experience**

## **Wells Fargo Minneapolis, MN**

## **Architect/Designer (TOGAF Certified) Oct 2013 – Current**

**My Role:**

* Provide the Solution Architecture which is a supportive architectural document that elaborates in more detail the proposed solution(s).
  + Created System Architecture Document and Functional Specification Document created include artifacts like SAD, FSD, data models, Conceptual diagrams, and other artifacts.
* *Technology Roadmap for Correspondent Lenders, with various architectural components including Security, Scalability and reliability.*
* Setup architect governance process for storing architect artifacts in the shareable architecture repository.
* Setup Sparx Enterprise Architect (EA) with TOGAF Ad-In as a shared architect repository.
* Architected a dynamic responsive questionnaire with behavioral constraint.
* Evaluated technical feasibility through proof of concept.
* Defined application key performance indicators(KPIs) and load test strategies
* Did performance tuning to maximize application.
* Established solution frame-work considering layered architecture and right design patterns focusing on key architectural objectives of open-closed, decoupled, reusable and extendable solution.
* Designed multi-threaded design job and scheduler level for batch processing
* Configured Tomcat (concurrent threads, stackSize for each thread, HeapSize, permSize, # of JVMs on each server, JVM tuning,
* Proof of concept for testing with different server configurations.
* Proof of concept for migrating old applications (FoxPro, PowerBuilder) to supported technology.
* Proof of concept for testing the performance/storage requirements of Lucene based search solution.
* Involved with DBA in database tuning (query tuning, table partitioning, buffers)

**Technical Environment:** Enterprise Architect (EA) , Sapiens Drools based rule engine, CAIntroscope 8.x MQ, Java 8, Spring, AJAX, SOAP and REST, MVC, HTML5, CSS3, Spring Security, YIU, JQuery, Oracle, MS Project, Enterprise Architecture, JIRA, Crucible, Confluence, Anthill pro and Jenkin Integration.

## **Decimal Solutions Inc.**

* Do proof of concepts and other software development
* Use AWS code deploy with GitHub.
* Provide Learning Classes on Amazon AWS.
* Use for all free lance work.

## **Prime Therapeutics Eagan, MN**

## **Sr. Software Consultant Nov 2012 – Oct 2013**

* Responsible for architecting/re-designing solution of an existing application so as to provide better scalable architecture that meeting functional and non-functional requirements.
* Developed Proof of Concepts to verify new architecture.
* Provided architecture documents and related documents.
* Created measureable performance objectives that follows S-M-A-R-T criteria.
* Event driven architecture an alternate of batch process.

**Technical Environment:** Visio, Java, J2EE, Spring IOC, JMS, MQ Series, Restful Web Services, DB2, Ant 1.7.4, Maven 3.0.5, STS 3.6, Jira 6.0, Axis-1.x, 2.x, Confluence 5.1.3, Crucible 3.0, Fisheye, IBM RAD 8.0.4, WAS 7.5

## **Cigna Minneapolis, MN**

## **Team Lead Jun 2012 – Nov 2012**

* Lead a team of 6 developers in architecting and developing a solution for implementing ‘Auto Assignment’ functionality in the CODE Runner in both Desktop and Batch Module.
* Collaborated with Business, Enterprise Architecture, Application Development, and Quality Assurance teams to come up with quality solution with timely deliverables

**Technical Environment:** Java, J2EE, JSP, JUnit, Mockito, Eclemma, iBatis 3.1, Spring IOC, AOP, MQ JMS, EhCache, Oracle 11g, Drools, jBPM, JSTL, Flex , MVP, Maven, STS 3.6, Rally for Agile Stories and tasks.

## **Carlson Wagonlit Technologies Minneapolis, MN**

**Java Architect Feb 2012 – Jun 2012**

Re-architecting existing legacy application from DOS, C, .Net to Java, Drools, JBPM.

* Created Solution Design Document with required artifacts covering functional and non functional requirements, components, Interfaces, external dependencies, risk factors etc.
* Created conceptual diagram, component diagram
* Created technical specifications document (detail design)
* POC feasibility of open source Drools to capture Identify potential bottlenecks
* Main emphasis is on performance and vertical and horizontal scalability.
* Making sure PCI Compliant along with Enterprise policy
* Helped in setting up of environments(dev, qa, sit, prod), that includes Weblogic Server, Oracle database, Hudson/Jenkin for Continuous Integration, SVN for version control, and Nexus for maven repositories.
* Working with project manager in release planning and prioritizing stories.
* Coordinating between business, team leads, DBA QA, IT Ops and other teams,

**Technical Environment:** Java, J2EE, JSP, JUnit, Eclemma, Hibernate 3.1, Spring IOC, AOP, MQ JMS, distributed EhCache, SAML, Oracle 11g, Oracle AQ, Drools, jBPM, JSTL, Spring tags, GWT, MVP, Maven, STS 3.6, Rally for Agile Stories and tasks.

**McKesson Technology Solutions Minneapolis, MN**

**Sr. Software Consultant Sep 2011 – Feb 2012**

Integration of two applications; ‘Horizon Quality Monitor (HQM)’ and ‘Horizon Enterprise Visibility(HEV)’. Designed and development of various modules of that involves JMS, Web Services, Spring, Junit etc using a Test-Driven Development (TDD) approach.

* Analyzed exiting product and designed solution for integrations.
* Gathering and identify the requirements and propose the solution.
* Designed, developed and documented technical specifications.
* Based on requirement finalize the schema. Finalize queries using hibernate to fetch the data needed to converted to XML and sent to queue.
* Support pages using Spring controllers, tags and JSTL for sending to queue based on various criteria.
* Introduced JMock for the testing and for coverage Eclemma.

**Technical Environment:** Java, J2EE, JSP, JUnit, Eclemma, Hibernate 3.1, Spring IOC, AOP, MQ JMS, Oracle 11g, Oracle AQ, JSTL, Spring tags, GWT, MVP, Maven, STS 3.6, StarTeam, Groovy, Rally.

**Royal Bank of Canada Minneapolis, MN**

**Application Architect Apr 2011 – Sep 2011**

Responsible for two main projects:

Designed and architecture new project; documenting the technical details including UML and use cases. Setup a process and guidelines to be followed by local and outsourced developers. That included setting up framework and environment.

1. Annuity and Insurance (AANDI)
   * PowerBuilder internal application a rule-based record keeping system for tracking the processing, transfer and commission regulations of Annuity transaction.
   * Identified right technologies from the existing available choices and enterprise polices
   * Created Software Architecture Document showing the description of software architecture, including major software components and their integration.
   * Designed n-layer interacting with mainframe, JMS, two databases and external clients.
   * Created a POC.
2. Reorganization One and Done (ROAD)

* Developed plan to upgrade from Java 1.4 to Java 1.6.
* Plan to upgrade from WAS 6.0 to WAS 7.5
* test strategies, functionality and performance testing.

**Technical Skills:** Java, J2EE, JSP, JUNIT, Hibernate 3.1, Spring IOC, AOP, MQ JMS, DB2, MSSQL Server WAS 7.0, RSA, SOAP and REST Web Services, Axis-2 , AJAX, JSTL, Spring tags, JQuery , Eclipse 3.6, CVS, SVN.

## **Wells Fargo WMG Minneapolis, MN**

**Sr. Application Developer Oct 2009 – Apr 2011**

Enterprise Bus Services (ESB), a service-oriented integration platform. It is an interface to client applications, insulating the impact of technical and enterprise changes.

* Led the design and development of web services using Test-Driven Development following Agile approach with two weeks iteration.
* Participated in story jams, business requirements and design discussions.
* Involved in designing role based authorization for web services.
* Performed regular code peer review and business review.

**Technical Skills:** Agile, Scrum, Java, J2EE, EJB 3, JSP, JUNIT, Hibernate 3.1, Spring IOC, AOP, MVC, Oracle 10g, WebLogic 9.2, Tangosol/Oracle Coherence, JAX-WS SOAP WebServices, Axis-2, Ivy, ECLEmma, CheckStyle, FindBugs, Confluence Enterprise Wiki, Crucible, CVS, SVN (Tortoise)

## **Comcast, Mt. Laurel, NJ**

**Sr. Application Consultant Jul 2009 – Oct 2009**

**Workbench Application**

This is J2EE application, which assists the Comcast agents to create a lead for a given opportunity and then complete the work process to convert the opportunity to a contract.

**Responsibilities:**

* Architecture and designing of the application using Spring-DWR, Struts, AJAX, SOAP web services.
* Involved in both front end (Spring-DWR, Velocity Templates, Trimpath) and backend.
* Agile methodology, with four weeks iteration, having two stand-ups morning and evening.
* Developed business layer and presentation showing Scheduled Time and Slot for customer installation of the Comcast products.
* Design of Cellback Haul task pages, used by sales person to convert opportunity to tasks. Accept Service Order to final contract. (24 tasks).

**Technical Skills:** Weblogic 10.0, Eclipse, CVS, Java, J2EE, JSP, JUNIT, Anthill, Hibernate 3.1, Spring IOC, Spring DWR, AJAX, Swing, applet, JavaScript, Taglibs, Portlets, Oracle 10g, Aqualogic BPM.

## **US Bank, MN Saint Paul, MN**

**Team Lead Sep 2005 – Jun 2009**

### **Multi Service Aviation WEBPOS (MSA-WEBPOS):**.

* Collaborating with Business analyst and various teams involved
* Migrating whole project and team from WebSphere Application Server(WAS) 5.1 to and WebSphere Application Server(WAS) 6.1 and GUI from RAD 6.0 to RAD 7.1 and from Java 1.4 to Java 1.5
* Web application profiling, using JProbe.
* Login/logout/forget password, security questions module integration with WebGate/NetPoint.
* Receipt generation/printing with iText.

**Result:** Other than successful migration, successfully implemented new enhancements, new features (Receipt printing as PDF) and transition from WAS 6.0 to WAS 6.1.

**Technical Skills:** WebSphere Application Server (WAS 6.1), RAD 7.1, Rational Rose, SVN, Active Directory, Jasper Reports, iText, J2EE, EJB 3.0, JSP, JUNIT, XML, DOM, XSD, MQ, Hibernate 3.1, Spring, Oracle 9i.

### **VOYAGER Fleet Systems:**

* Architect/Design of Gas Station locator module, where Voyager Card is accepted, showing latest gas price. Used Microsoft MapPoint Web services (SOAP) to display location on the map.
* Mass card creation modules, where client can request more than one credit card (up to 99) for his fleet/drivers.

**Result:** Successfully implementation to production and edge over competitors & helped in winning contract.

**Technical Skills:** Rational Application Developer (RAD 7.1), Rational Rose, Clear-Case, Java, Facelets, Hibernate 3.1, Agile Methodology, Spring, Oracle 10g, DB2, AJAX, XML, Microsoft MapPoint, SOAP Web-Services.

### **Access Online (AXOL):**

* Helped in new enhancements and code refactoring.
* Worked in TIBCO BW5 and Java to creating Web Services (REST) so that end user can submit new card creation/maintenance through their own website using our Web Service.

**Result:** Successfully implemented various enhancements and code improvements

**Skills Used:** WebSphere, Rational Rose, ClearCase, ClearQuest, J2EE, EJB, JSP, Servlet, Spring MVC, Hibernate 3.0, Taglibs, Oracle 9i, DB2, MS-SQL, DB2, TIBCO In Concert 6.2.1 and BW 5.4, WS-BPEL, JMS/EMS, Web Services, XML DOM, XSLT, XPATH, XQuery, XSD, XLINK, Sun Solaris Unix.

## **3M, MN Saint Paul, MN**

**Architect/Team Lead Feb 2001 – Sep 2005**

**Involved in following projects/applications; *(i.)* Multimedia Conferencing Service *(ii.)* Cellular Service (*iii.)* Client Access Viewing System *(iv.)* EID Repository API**

* Gathering user requirements, drafting business use-cases based on the requirements.
* Created System Architectural Document(SAD) and Functional Specification Document(FSD).
* Created Functional Specification Document(FSD), Component diagram, Activity diagrams
* Class diagrams, object-level use cases, communication/sequence.
* Design used web services for subscription process and data cleanup on vendor end.
* Coordinated with Global Crossing Team in development, testing to production deployment
* Involved in all phases till deployment/maintenance on the production.

**Technical Skills:** Java 1.3, J2EE, Struts 1.1, Web Services (SOAP), JSP, Servlets, Struts-Taglibs, Rational Rose, IBM Portlets, JSR 168, WSAD, Oracle 8, DB2, 3M Persistence framework, Unix.

## **3M, MN Saint Paul, MN**

**Technical Consultant Feb 1999 – Jan 2001**

**Telecommunication and Order Processing System**

* Maintained and enhanced PowerBuilder application later implemented few modules to the tomcat.
* Performed database tuning to improve application performance
* Designed and developed new features and bug fixes to minimize risk to business

**Technical Skills:** PowerBuilder 6.5, eclipse, Java, J2EE, security roles, Struts, Tomcat.

## **Southwestern Bell, MO Aug 1998 - Feb 1999**

**Technical Consultant**

Migration from SQL Server 6.5 databases to Oracle 7.3.3

## **Security Link, Ameritech, IL**

**Technical Consultant Mar 1998 - Aug 1998**

Duplication & Cancellation Detection Application:

## **Punjabi University, India**

### **Lecturer Oct 1992 - Jan 1998**

Teaching computer science subjects (Database, Computer Networks, Programming Languages etc.) to undergraduates and Graduates. I was also responsible for few in university projects.

### **Library Information System:** A Simple Library Information System for issuing & return of library books and for keeping the stock of the departmental libraries. Software to use was Oracle and PowerBuilder.

### **TIFF file interpretation for Result Processing**: This S/W was made in C++, its main function was to read the tiff files generated by Scanner and convert it into textual form and append to the final data file.

### **On-Line Information Processing Software for Indian Science Congress (ISCA**): For on-line registration of delegates, reporting state-wise, subject-wise list of delegates, accommodation details & reservation.

## **Himachal Pradesh University, Simla, Lecturer Jan 1991 - Sep 1992**

**Thapar University (TIET) , Patiala, India, Programmer/Systems Analyst Oct 1989 - Dec 1990**

## **Christian Medical College & Hospital, India, Programmer Jan 1989 - Sep 1989**

## **Education**

* Master of Computer Application: Thapar Institute of Engineering & Technology (1989), Patiala, India.
* Bachelor of Sciences: Punjab University, Chandigarh, India
* **Project Management Professional** (PMP, # 306617), 2005.
* The Open Group Architecture Framework(TOGAF v9.1, # 93795)