ANINDYA SAHA

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Java-J2EE Technology Architect with 12 years of experience

Proven expertise in: Software Architecting • Tech Lead • Software Development Lifecycles

Objective: Seeking Summer Research Internship in Cloud Computing and Big Data Research Lab

Education

- Master of Computer Science, Texas A & M University, College Station, Texas, May 2016 (expected), CGPA 4.0
- Certificate Program in Global Business Management, Indian Institute of Management, Calcutta, India, 2012
- B.E. (Electrical), Bengal Engineering and Science University, West Bengal, India, 2002 (rank 13/65, marks 79%)

Courses Taken

- Texas A & M University:
 Database Systems, Software Engineering, Computer Architecture Fall 2014

 Analysis of Algorithms, Machine Learning, Research Credits ongoing in Spring 2015
- Coursera: R Programming (John Hopkins), Machine Learning (Stanford)

Technical Skills

- **Programming Languages:** Java 5.0+(expert), C/C++(prior experience), UML, Shell scripts, Weblogic scripting
- Architecture: J2EE1.5, EJB 3.0, Java/J2EE Design Patterns
- Java Frameworks: Spring 3.2, Hibernate, JAX-WS, JMX, JUnit, NoSql(MongoDB, Neo4j)
- **BPM:** jBPM 5.4, jBPM 6, Drools 5.4, Pega PRPC V6.1 SP2, V6.2 SP2
- Middleware: IBM MQ Series
- Front End: JSP, JSF 2.0, Struts 1.2, Primefaces 3.4
- Development Tools: Eclipse 3.7, Netbeans 6.7.1, IBM Rational Software Architect 7.0, ClearCase, MS VSS 6.0, Ant, Maven, Github
- Databases & Tools: Oracle 9i & 10q, IBM DB2 6.1, MySql, H2, hsqsldb, PL/SQL Developer
- Application Servers: Oc4j 9i, Weblogic 9.2, Websphere 5.1, Jboss 7.1.1, Tomcat 6.x+
- JVM Profilers: TCS Jensor, JProfiler, IBM Rational Software Analyzer, IBM Health Center
- Operating Systems: Windows XP/Vista/7 Unix, Linux, AIX, MacOSX

Employment History

- Technology Architect Cognizant Technology Solutions from Nov-2011 to Aug-2014
- Advisory System Analyst IBM India Pvt. Ltd from Jan-2010 to Jul-2011
- IT Analyst Tata Consultancy Pvt. Ltd from Jul-2002 to Jan-2010

Selected Engagements in Brief

Apple Inc. for Cognizant Technology Solutions US, Cupertino, California Technology Architect

Oct 2013 – Aug 2014

- Led the design of a customized workflow engine based on Open Source BPM framework from Redhat called jBPM. Functioned as BPM Lead and Subject Matter Expert to develop the core components of the engine and guided business partners on how to model business processes adhering to BPMN 2.0 standards.
- Worked with Apple Enterprise Architect to create artifacts such as High Level Design Document, Low Level Design Document, Deployment Architecture, Partner Integration etc.
- Liaised with Redhat Architects on performance benchmarking and tuning of jBPM to cater to a workload of 5000 workflow processes running concurrently at peak time. Conducted Code Reviews and Tuned queries to reduce response time from 3sec to ~50ms. Conducted Performance Tests to ensure stability and scalability.
- Collaborated with Enterprise Architect to devise vertical and horizontal scaling strategies and Multi-tenant support. Helped Product Owner in sizing requirements and breaking them up into 2 weeks Agile Sprints.
- Guided and provided technical leadership to the team members both India and USA. Mentored the team through Component design, Implementation, System Integration and Roll out.

Technology Architect

- Drove the design and development of a new Customer Account Management workflow framework based on jBPM and J2EE stack with team members from USA and India. I owned the responsibility for architecting the end-to-end technical solution and educate Business Stakeholders on Process Modeling using BPMN 2.0
- Hacked into jBPM source codes to solve a critical bug to make jBPM workflow processes execute seamlessly across distributed nodes in a cluster. My test cases are now incorporated by the jBPM product team.
- Coordinated with JPMC Enterprise Architect to produce Architecture work products such as Architecture
 Overview Diagrams, High Level Design Document (Use Case Diagram, Sequence Diagram) and Low Level
 Design Document (Class Diagram, Activity Diagram, State Chart and Data Model).

IBM India Pvt. Ltd, India

Jan 2010 - Jul 2011

Architect - Technology

Worked in the capacity of an Associate Technical Architect across various Business Units. I created software
architecture blue prints and developed proof of concepts primarily in the areas of Web Services, Spring
framework, Caching etc. for various clients; Also presented talks on how to conduct JVM profiling.

Pearl Insurance Group for Tata Consultancy Services, Peterborough, UKIT Analyst, Associate Technology Architect

- Functioned as a Junior IT Architect and adapted SEDA (Staged Event Driven Architecture, proposed by M. Welsh, D. Culler and E. Brewer, UC Berkley) to develop the Life Insurance Policy 'time-machine' framework for the customer using MDBs & MQs.
- Coordinated with the Project Manager for effort estimation & task breakups, identification of risks and preparation of risk mitigation plan.
- Managed a team of 4. Accountable for the entire framework, Collation of business & system requirements, Component design (Logical & Physical), Component development, System integration and Implementation.
- Extensively used Spring framework's DAO and Transaction Management modules. Implemented 'Template',
 'Façade', 'Composite', 'DAO', 'Thread Local' and 'Service Locator' design patterns and used Reentrant Lock
 API from JDK 5.0 for thread coordination and control.
- Involved in performance analysis, tuning and conducting JVM analysis with JProfiler and heap analysis using IBM Heap Analyzer. Implemented 'Remote Caching' to reduce server boot time from 20 mins to 8 mins.

Pearl Insurance Group for Tata Consultancy Services, Peterborough, UKIT Analyst, Associate Technology Architect

- Designed and developed a reliable, robust and scalable batch framework for Pearl Insurance Group (PGS) with my mentor cum Enterprise Architect. Also developed the core framework components responsible for batch job scheduling, job dependency tree and functionality to dispatch batch jobs over a network of clustered machines on the fly to the least loaded machine in the cluster.
- Led the team of 3 through Component design, Component development, Module integration, Unit testing and Implementation phases of the entire product and deployment of the framework at Peterborough.
- Captured and implemented NFR (Non Functional Requirements) from customer; coordinated with the Project Manager on resource planning and work schedule for self and team members.
- Used Spring framework's DAO support and Transaction management modules; implemented patterns such
 as Template method, Singleton, Factory, Abstract Factory, Connection pool; Used Future and Callable API's
 from JDK 5.0 to realize paged multi-threaded processing of business records.

Certifications and Awards

- "Manager of the Quarter" Award & "Best People & Practice Partner" Awards Cognizant, 2013
- OMG Certified Expert in BPM Fundamental (OMG OCEB-F100), 2013
- Redhat Certified BRMS Developer, 2013
- Sun Certified Developer for Java Web Services (SCDJWS 5 / OCPJWSD 5), 2011
- Sun Certified Web Component Developer (SCWCD 5 / OCPJWCD 5), 2008
- Sun Certified Java Programmer (SCJP 5 / OCPJP 5), 2006
- IBM Architect Mobilization Workshop, 2011 and Tata Consultancy Services Enterprise Architect Program, 2008
- Selected among top 100 coders in eastern zone, in TCS top 10 coding contest, 2008