Kaustav Sarkar
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Professional Summary

- 5+ years of experience in Software Analysis, Design, Development, Implementation and Testing of Object-Oriented Applications and Web based Enterprise Applications using Java/J2EE.
- Expertise in various open source frameworks like Spring 2.x/3.x/4.x, and ORM Technology like Hibernate 2.x/3.x/4.x/5.x, JPA, iBatis.
- Strong experience in Spring Framework modules such as Spring MVC, IOC, AOP, JDBC, JTA, IO, Spring Dashboard, Spring Boot, Spring REST and experience in developing Microservices using tech stack like Spring Boot, Spring Data and REST APIs.
- Good experience with Amazon AWS services like: EC2, S3, VPC, ELB, AMI, SNS, RDS, IAM, Lambda, Route 53, Auto Scaling Groups, CloudFront, CloudWatch, CloudTrail, CloudFormation.
- Good experience with databases like Oracle, SQL Server, PL/SQL, PostgreSQL, Sybase Adaptive Server Enterprise, IBM DB2, SQL Anywhere.
- Good experience working with CI/CD tools like Jenkins and Docker.

Education

- **State University of New York at Stony Brook** — Stony Brook, NY, US
  Master of Science in Computer Science; GPA: 3.57 — *Jan 2019 – May 2020*
- **West Bengal University of Technology** — Kolkata, WB, INDIA
  Bachelor of Technology in Information Technology; GPA: 8.07/10.0 — *Aug 2012 – July 2016*

Skills

Programming Languages	Java, J2EE, Python, C, R
Web/XML Technologies	HTML, CSS, JavaScript, AJAX, jQuery, Servlets, JSP, JAXB
Frameworks	Spring 2/3/4, Spring MVC, Spring Boot
ORM Technologies	Hibernate 2/3/4/5, JPA, iBatis
Tools & Utilities	Eclipse, IntelliJ IDEA, DataGrip, PyCharm, Net Beans, Maven, Jira, Docker
Application/Web Servers	Oracle WebLogic, IBM Web Sphere, JBoss, Apache Tomcat, Jetty
Databases	Oracle, SQL Server, PL/SQL, PostgreSQL, Sybase Adaptive Server Enterprise, IBM DB2, SQL Anywhere
Cloud	Amazon Web Services (EC2, S3, IAM, VPC, EMR, SES/SNS)

Projects

- **IOT Car Tracker**: Fleet Management System, involving development of RESTful APIs to track real-time car readings. Technologies: Spring MVC, SpringBoot, MySQL, AWS SES, Docker, Jenkins.
- **IEEE-CIS Fraud Detection**: Improve the efficacy of fraudulent transaction alerts for millions of people around the world, helping businesses reduce their fraud loss and increase their revenue, using Data Science.
- **SHARK2 Decoder**: Involves decoding an user input gesture and outputting the best decoded word, given a dictionary containing 10k words using the SHARK2 algorithm. Beats Swiftkey performance metrics benchmarks.
- **NYSE Stock Analysis**: Uses the MapReduce programming model using Apache Spark and AWS EMR to perform various analysis of different stocks of the New York Stock Exchange.

Experience

- **Stony Brook University (Medicine)** Stony Brook, NY, US
  Researcher/Programmer Analyst *Aug 2019 - Present*
  - **POSDA**: POSDA is an open source application for the archival and curation of DICOM datasets. After receiving the data from submitters our curation teams use POSDA to perform additional quality checks and ensure all data was completely de-identified. It allows users to import DICOM data while tracking date and time received. Users can also prioritize multiple data submission streams based on assigned priority, identify and resolve duplicate unique identifiers (UIDs) submitted with different image or metadata, and check and edit data for DICOM conformance, consistency, and referential integrity.
  - Worked in Agile/ Scrum environment with bi-weekly Sprint.Developed non-functional HTML5, CSS3 pages from the mockups and involved in UI review with Architect and Business Units.
  - Developed Session beans, which encapsulate the workflow logic and used Hibernate to access data.Implemented Spring-JDBC template for persistence CRUD operations.
  - Converted a monolithic app to microservices architecture using Spring Boot.Developed Spring Boot application, which includes the development of producing and consumption of RESTful web services to verify the customer eligibility for the applied insurance policy.
  - Created event driven jobs using AWS like DynamoDB, SQS and AWS Lambda with Java. Used Git for version control/Source code repository, JIRA for issue/defect tracking and project management
  - **Environment**: Java 1.7/1.8, JSP, Spring MVC, Spring 4.x, Hibernate 4.x, UML, JavaScript, HTML5, CSS3, Ajax, , DB2, JIRA, Confluence, GIT, RESTful web services, Maven, Log4J, WebSphere Application Server, Tomcat 8, Windows, AWS EC2, S3.
- **Tata Consultancy Services** Kolkata, WB, INDIA
  Software Engineer *July 2016 - Dec 2018*
  - **Department of Post, Core System Integration**: DOP-CSI is an IT modernization program, to equip India Post with modern technologies and systems to enable it to serve more services to more customers in an effective manner. The scope of the project includes developing and supporting mail, finance accounts, HR, customer interaction management solutions for all channels including the rural ICT platform, data migration, infrastructure, Service Level Agreement (SLA), call center and centralized 24x7 service desk operation for all DoP. The end-to-end security solutions, Enterprise Management System (EMS) and an overall integration for the entire system is the responsibility of CSI.
  - Involved in various phases of Software Development Life Cycle (SDLC) as requirement gathering, modeling, analysis, architecture design development and the project was developed using Agile Methodologies.
  - Developed the application using Java 1.8, Spring MVC, Batch, Spring Boot, Micro Services deployed in Cloud using AWS.
  - Used Lambda expressions, Functional Interfaces and Streams among other concepts from Java 8.
  - Used Spring MVC Design Pattern to hold the UI data and serve the request and to send the response.
  - Connected to Data sources and performed operations using Spring Data Framework features like Spring JDBC and Spring ORM.
  - Created and injected Spring services, Spring controllers and DAOs to achieve dependency injection and to wire objects of business classes Experience with developing Hibernate 5.x Annotations.
  - Extensively used various Spring Framework modules like DI (IOC), Bean Wiring, Inheritance, Auto Wiring, JDBC Templates, AOP and Spring Quartz Schedulers for Jobs.
  - Developed the application security using Spring Security and integrated with LDAP and Active Directory.
  - Spring AOP is used for logging, auditing, transaction management to distinguish business logic from the cross-cutting concerns. Extensively used Application Context, Spring DI for loading Properties during run time.
  - The Micro Services are implemented using Spring Boot, REST API and Hibernate ORM. Implemented JEE components using Spring MVC and Spring Security modules.
  - Used Spring Boot framework to create properties for various environments and for configuration.
  - Used SAX parser for parsing the XML documents that are retrieved upon consuming the Web Services.
  - Extensively used Hibernate Relational mappings (One-To-Many, Many-To-Many).
  - Extensively worked on Hibernate Cache, Query, Criteria and Transactions for POC.
  - Designed and developed many Spring RESTful web services which produce different response types including JSON, XML and are consumed by different front-end applications.

- Implemented and maintained monitoring and alerting of production and corporate servers such as EC2 and storage such as S3 buckets using AWS CloudWatch.
- Implemented AWS IAM for managing the credentials of applications that runs on EC2 instances.
- Utilized AWS Lambda platform to upload data into AWS S3 buckets and to trigger other Lambda functions.
- Used Jenkins for Continued Integration and run automated test cases.
- Used GIT version control systems to maintain project versions.
- Used the Log4j framework to log the system execution details to log files.
- Worked with Maven build and deployment process.
- Developed the unit test cases using JUnit, Mockito and Hamcrest frameworks.
- **Environment**: Java 1.8, J2EE, Spring 4.2, Spring MVC, Hibernate 5.x, Spring Boot, Microservices, AWS (S3, EC2, IAM etc), REST, HTML, CSS, JavaScript, Jenkins, GIT, Log4J, Maven, JUnit, JSON, MySQL.

- **Indian Railways, Ministry of Indian Govt.** Kolkata, WB, INDIA
  Technology Analyst Co-Op *Jun 2015 - Jul 2016*
  - **IPAS**: Web Application Development of Payroll Management System, commonly known as Integrated Payroll and Accounting System (IPAS). IPAS is the internal payroll management system, through which all employees of Indian Railways receive their salary.
  - Implemented the front end using JSP, HTML, XML, CSS and JavaScript, jQuery, AJAX for dynamic web content.Also implemented Spring MVC architecture and Spring Bean Factory using IOC, AOP concepts.
  - Extensively used Hibernate 3.5 in data access layer to access and update information in the database using HQL.
  - Involved in writing SQL, Stored procedure, and PL/SQL for back end. Used Views and Functions at the Oracle Database end. Developed the PL/SQL scripts for rebuilding the application Oracle Database.
  - Used JDBC to invoke Stored Procedures and database connectivity to ORACLE 10g.
  - Implemented Spring ORM wiring with Hibernate provided access to Oracle 10g RDBMS.
  - Used Hibernate EHCache for second level caching which resulted in enhanced performance of the application.
  - Responsible for implementing the transaction management in the application by applying Spring AOP methodology and XML parsing by using JAXB for XML Schema Validation.
  - Used XSLT to transform XML data structure into HTML pages.Consumed SOAP & REST based web services to transfer information.
  - Monitored the error logs using Log4J and fixing the problems.
  - Used Java Message Service (JMS) for reliable and asynchronous exchange of important information, such as order status report, delivery report.
  - Maven was used to manage dependencies in the application and deploy it on WebSphere Application server. SVN was used for the version control.
  - Followed TDD and wrote unit test cases using JUnit.
  - **Environment**: Java 1.6, J2EE, JSP, Spring MVC, Spring 3.1, Hibernate 3.5, JMS 1.1, XML, SOAP, AJAX, HTML, JavaScript, CSS, Log4J, JAXB, JUnit, WebSphere Application Server 6.0, Eclipse 3.5, Oracle 10g.