ARITRA KUMAR LAHIRI

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Summary

Seeking full time employment as Software Engineer with 4+ years of professional work experience on test driven software development, Scrum principles and web based Java applications. In depth knowledge in data structures, Algorithms, service-oriented architecture, object oriented programming and Agile software development life-cycle.

Technical Skills

OS: Windows, Linux (Ubuntu). **DBMS**: Oracle, SQL Server, MySQL, MongoDB, PostgreSQL. **Programming Languages:** C, C++,C#, Java,J2EE,Python,VBA,R. **Technologies**:JavaScript,D3,HTML,CSS,AngularJS,XML,SOAP,REST,Bootstrap, Selenium, JSP, JSON. **Tools/Frameworks/ Servers:** Spring MVC, Hibernate, Spring Boot, Selenium, ASP.NET, Eclipse, Spark, PHP, Node.JS, Visual Studio, IntelliJ, Git, Tomcat, Pandas, Matplotlib, Tableau, Anaconda, Jupyter, Notebook.

Professional Experience

Software Development Engineer - *Pearson*   June 2016 – Present
- Implemented Service Oriented Applications using web services with XML, SOAP, WSDL, JAX-WS. Developed REST APIs utilizing Spring and Hibernate for persistence. Fixed integration endpoint mapping following openAPI spec in Swagger, consumed REST APIs using Swagger UI. Verified the Web Service response using Apache Axis, SOAP UI.
- Designed and implemented Spring Boot Microservices for search and indexing data into backend MongoDB. Extensively used Java Collections API like Map, Set, Lists, Java concurrency package for multithreaded application calls**.**
- Automated test scripts in Java using Selenium Web Driver, Gradle, TestNG drastically reducing manual resource hours.
- Used JUnit for TDD integrated with Ant, Jenkins, improved unit test coverage by 80 %, collaborated through Bitbucket.

Full Stack Web Developer Intern - *Honey Bee Health (Startup)*   May 2015 – Aug 2015
- Prototyped a health analytics recommender system, that maps disease risk factors with biosensor device features and generate a mapping algorithm to prescribe devices based on patient profile.
- Designed a MEAN Stack application using Angular JS at front end, Node JS Server, Express JS for connecting with the DB at back end and MongoDB (NoSQL) database. Installed Ruby for running Sass CSS, Compass, Git for version control.

Graduate Teaching Assistant - *Arizona State University*   Sep 2014 - May 2016
- Worked as teaching assistant for course in C++, mentored students through coding feedbacks, online discussion sessions.

Programmer Analyst Trainee - *Xerox Business Service, Cognizant Technology Solutions*   Nov 2013- Jun 2014
- Enhanced performance after migrating legacy application to new Spring MVC development platform for existing customer portal. Achieved faster access of data from backend systems. Used J2EE, XML, HTML5, CSS3, Bootstrap, JS.
- Implemented security features that includes PKI, OTP, HTTPS, virtual keyboard, user access control and validations.

Academic, Research and Independent Projects

Predictive Analysis of purchasing trends in Video game data   December 2018
- Analysed the data for a recent fantasy game Heroes of Pymoli and generated a report that breaks down the game's purchasing data into meaningful insights which includes Player Count, Purchasing Analysis, Gender Demographics, Purchasing Analysis based on Gender, Age Demographics, Top Spenders, Most Popular Items, Most Profitable Items.
- Tools – Windows 10, Python, Anaconda, Jupyter, Notebook Numpy, Pandas, Matplotlib, CSV.

Election Data Analysis   November 2018
- Analysed election data to calculate the total votes cast, list of candidates who received votes, the percentage of votes each candidate won, total votes each candidate won, the winner of the election based on popular vote. Tools : Anaconda, Python, Jupyter, VBA, Notebook.

Mobile Adaptive Visual Recommender System   Fall 2015
- Developed a responsive personalized visualization recommender tool for mobile adaptive devices.
- Created a matrix form with comparable recommended results based on categories in user controlled interface.
- Tools: HTML5, CSS, Bootstrap (using Jquery), D3, JavaScript, SVG, R , PHP , AJAX, Stack Overflow Dataset.

Item based Incremental Top-k Recommendation System   Spring 2015
- Modelled a restaurant recommender system by analysing filtering algorithms to predict binary ratings to the user.
- Tools: Ruby On Rails framework, Redis (NoSQL) DB, Restaurant-Consumer Dataset(UCI Machine Learning Repo).

Geo-Spatial Operations using Apache Spark Cluster in Hadoop Distributed File System   Spring 2015
- Performed geo spatial operations like Spatial range, join query, convex hull in distributed Apache Spark framework using HDFS. Used RDDs to handle iterative algorithm. Experimented across multiple nodes with large datasets.
- Tools: Java in Eclipse IDE, PostgreSQL, Spark Java API and Java RDDs, Ganglia for performance evaluation.

Implementation of Data Partitioning techniques, Query processing operations   Spring 2015
- Analyzed Movie-Lens Dataset with 10M records to implement range partitioning and round – robin partitioning.
- Implementation of parallel sort and parallel join operations on partitioned tables. Used Python and PostgreSQL.

Personal Project & Leadership Initiatives:
- Successfully delivered crowdsourced flashcard app by leading a team of 6 members as part of Pearson Hackathon.
- Implemented a backend RESTful API of a mini message service like Twitter using Spring Boot, Java , H2 Database.

Education

Masters in Computer Science *Arizona State University, Tempe, AZ, USA*.   May 2016
B-Tech in Comp Science and Engineering *West Bengal University of Technology, Kolkata, WB, India*   July 2013