ARITRA KUMAR LAHIRI

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Summary

Software Developer with a natural flair for combining technical know-how with creative element. 4+ years of demonstrated industry experience in test driven software development, Scrum principles and web based Java applications. Well-versed in data structures, Algorithms, object oriented programming and predictive data analysis.

Technical Skills

OS: Windows, Linux (Ubuntu). **DBMS**: Oracle, SQL Server, MySQL, MongoDB, PostgreSQL. **Programming Languages:** C, C++, C#, Java, JavaScript, Python,VBA, R. **Technologies**: J2EE, D3, HTML, CSS, Angular 6, XML, SOAP, REST, Bootstrap, JSP, JSON. **Tools/Frameworks/ Servers:** Spring MVC, Hibernate, Spring Boot, AWS S3, Selenium, ASP.NET, Eclipse, Spark, Node.JS, Visual Studio, IntelliJ, Git, Tomcat, Pandas, Matplotlib, Anaconda, Jupyter Notebook, Pivotal Cloud Foundry.

Professional Experience

Software Engineer - *Ford Motors (May 2019 - Present)*

- Facilitated early defect detection and provided gainful insights in manufacturing analytics for assembly line in plants related to paint, chip and scratch through development of robust web application both front end and backend.
- Integrated the application to support Industrial IOT platform and won Tech award for innovation as part of GDIA team.
- Tools - Angular 6, Spring Boot in Java at backend, MS SQL server , PCF , AWS S3, LDAP and Email as micro-services.

Software Development Engineer - *Pearson (June 2016 – May 2019)*

- Implemented Service Oriented Applications using web services with XML, SOAP, WSDL, JAX-WS. Developed REST APIs utilizing Spring and Hibernate for persistence.
- Designed and implemented Spring Boot Microservices for search and indexing data into backend MongoDB.
- Analyzed and implemented POC to gauge how regional expenditures in K-12 schools affect the performances of enrolled students. Utilized Python, Pandas, Numpy, Matplotlib, Jupyter Notebook to perform the data analysis.
- Automated test scripts in Java using Selenium Web Driver, Gradle, TestNG drastically reducing manual resource hours.

Full Stack Web Developer Intern - *Biodesign Institute, Arizona State University (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.
- Tools - Angular JS front end, Node JS, Express JS , MongoDB. Ruby for running Sass CSS, Compass and Git

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.

Personal and Independent Project

- Implemented Flask App to render scraped Mars related data from NASA website and display the information in a single page application. Tools used : Jupyter Notebook, BeautifulSoup, Pandas, Splinter, PyMongo and Flask.
- Explored bellybutton biodiversity dataset to build Interactive dashboard using Plotly.JS, D3 and Flask App.
- Data Analysis on Video Game and Election Voting dataset to derive trends and anomalies pertaining to the features. Tools - Python, Anaconda, Jupyter Notebook, Numpy, Pandas, Matplotlib.
- Manipulate Document Object Model to filter dataset based single or multiple search categories. Tools – Python, JS.

Academic and Research Projects

Sentiment Analysis on Game of Thrones Season 8 Tweets (*May 2019*)

- Analyzed sentiments of different characters by calculating polarity scores and predicted season outcome by applying logistic regression over the model dataset sample using train test split.
- Tools - Python, Anaconda, Pandas, Tweepy API, Textblob, Scikit learn ML library, NLTK, TF-IDF vectorizer.

Spotify Data Visualization *(March 2019)*

- Analyzed Spotify Million Playlist Dataset to extract and visualize top artists and tracks by each region.
- Tools - JVectorMaps(native JS library), Python, Pandas, Jupyter Notebook, Plotly.JS.

Geo-Spatial Operations using Apache Spark Cluster in Hadoop Distributed File System (*January - May 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 (*January - May 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

Service oriented Application using RESTful Web Service (*August- December 2014*)

- Hotel Web Service application in ASP.NET utilizing RESTful web services, cookies, session management, user controls, form security. The application is hosted on IIS consuming WCF web service and XML database.

Education

Data Science Analytics (Certificate Course) *University of Arizona, Phoenix, AZ, USA* May 2019
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