

# 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 data analytics.

## 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, NodeJS, 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.
- Designed and implemented Spring Boot Microservices for search and indexing data into backend MongoDB.
- Analysed 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 - 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.

### 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

- Data Analysis for fantasy game Heroes of Pymoli to provide insights of game's purchasing data including Player Count, Purchasing Analysis, Gender Demographics.
- Tools – Python, Anaconda, Jupyter, Notebook Numpy, Pandas, Matplotlib.

### 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 – Python, Anaconda, Jupyter, Notebook Numpy, Pandas, Matplotlib.

### Filter UFO Sighting dataset

November 2018

- Manipulate Document Object Model to filter dataset based single or multiple search categories based single or multiple search categories. Tools – JavaScript, Python

### 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.

### 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.

### Service oriented Application using RESTful Web Service

Spring 2015

- 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.

## Personal 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.

## 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