

# Anshu Agrawal

anshua@andrew.cmu.edu • (410)-245-7204 • 912 Maryland Avenue 6B, Pittsburgh, PA 15232

## Summary

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Oracle Certified Java Programmer with over 3 years of experience in frontend & backend development of multi-tier distributed enterprise web applications using Java, J2EE, Open Source Frameworks such as Spring 3.1, and Oracle database, and over one year of hands-on experience on Hadoop Ecosystem components such as HDFS, MapReduce, Sqoop, Pig, Hive and HBase.

## Education

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### Carnegie Mellon University (CMU), Pittsburgh, PA

December 2016

Master of Information Systems Management (*Business Intelligence & Data Analytics Concentration*)

GPA: 3.58

**CourseWork:** Distributed Systems, Database Management, NoSQL Databases, Data Warehousing, Python, Data Mining, Applied Econometrics, Applied Data Science, Advanced Business Analytics, R Programming

### Vellore Institute of Technology, Vellore, Tamil Nadu, India

August 2008

Bachelor of Technology in Computer Science & Engineering

GPA: 3.83

## Academic Projects

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### Data Warehousing for 311 Service Requests from New York City

March 2016

- Built a Data Warehouse that contained information about the different complaints received from all the boroughs in NYC, pertaining to distinct agencies and logged at a specific time and location. Generated OLAP cubes using Microsoft SQL Server Analysis Services as per the business requirements

### NoSQL Research Paper

March 2016

- Researched and wrote a paper on *MongoDB- Performance Tuning Techniques- Discussion, Analyses & Considerations*

### Life-Time Value of Customers of an Online Greeting Card Company – Data Mining

December 2015

- Researched and implemented k-means algorithm using R to run cluster analysis on the dataset
- Identified three key segments (very active, active & sleeping) of the customers based on their login patterns
- Assisted in developing R code for Time Series Cross Validation

## Technical Skills

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- Technologies: Java, J2EE, HTML, CSS, JavaScript, XML, JSP, Servlets, JDBC, Struts 1.3/1.2, Spring 3.1, Spring MVC, Java Web Services (REST and SOAP), Log4j, Maven, Oracle 10g, SQL, PL/SQL, Tomcat 7.0, R, Hadoop Ecosystem, Hadoop 1.x, HDFS, MapReduce, Pig, Sqoop, Hive, Flume, Oozie, HBase
- Design Patterns: Singleton, Factory, MVC, Front controller, DAO, DTO
- IDE: Eclipse Kepler, NetBeans, IBM RAD 7
- Tools: Toad, SQL Developer, Minitab, SVN, CVS
- Operating Systems: UNIX, Linux, Windows 8/7/XP/2000

## Professional Experience

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### Steria India (now called Sopra Steria)

Noida, India

#### Software Engineer/Technical Consultant

August 2011 – July 2015

- Evaluated suitability of Hadoop and its ecosystem to the client needs by implementing/validating with various proof of concept (POC) applications as part of Big Data initiative, which led to further projects
- Analyzed and compiled the data for ad-hoc reporting and dashboards using Hive, Pig, MapReduce, and Hbase after importing data into the HDFS from relational databases using Sqoop
- Designed and developed frontend and presentation layer logic using HTML, CSS, JavaScript, JSP, Servlet and Spring MVC framework that enabled the client to deliver enhanced functionalities to its retail banking customers, which led to cost savings of approximately GBP 0.8 million per year and improved client satisfaction
- Proposed and led a team of 4 to develop an in-house web application to help production support teams pro-actively monitor the applications and servers, which led to faster turnaround in event of failures and reduced the monthly volume of reactive incidents by 30%
- Developed and maintained backend services and persistence layer components using Spring Transaction Management, IOC (Dependency Injection) and DAO that facilitated transaction history, account and profile information to end user
- Enhanced backend components by customizing PL/SQL stored procedures, functions, SQL queries to ensure system continued to meet business needs; identified and tuned batch jobs to improve their performance by 20-40%

### Tata Consultancy Services (TCS)

Mumbai, India

#### Software Developer

August 2008 – February 2010

- Conceptualized and implemented an in-house Instant Messenger for effective communication within the project; the concept was awarded recognition at the TACTiCS, TCS Technical Architects' Conference-India-West
- Implemented backend Oracle PL/SQL stored procedures, functions etc. to ingest data from multiple interfaces and upstream systems and load the transformed data onto Oracle
- Created Unix wrapper scripts and scheduled the batch jobs on Control-M tool, which helped cut down manual effort and intervention by 70%