SUDHARCHITH SONTY

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WORK EXPERIENCE

SOFTWARE ENGINEER **LASTLINE INC** **OCTOBER 2017 – AUGUST 2018**

Worked as a Software Engineer for the Knowledge Base Team at Lastline Inc. The primary duties and responsibilities included the maintenance and improvement of the company's codebase, database, data schemas and the storage infrastructure.

ENGINEERING INTERN **HEALTHEDGE SOFTWARE INC** **AUGUST 2017 – OCTOBER 2017**

Worked as a part of the Performance Testing team and helped with the migration of the client from Swing to Angular JS. Also, wrote and monitored load and performance tests using Jmeter and JProfiler.

PROGRAMMER ANALYST TRAINEE **COGNIZANT TECHNOLOGY SOLUTIONS** **JULY 2014 – JUNE 2015**

Worked as a Programmer as a part of the Production support team(offshore) for a large American financial services firm. Performed maintenance and support for the servers of the firm and the back end of their Online Banking Application. Developed an Online Banking application during the training period.

EDUCATION

University at Buffalo, SUNY **August 2015 – June 2017**

- M.S. in Computer Science, GPA: 3.2
- **GRADUATE COURSEWORK**: Computer Security, Data Warehousing, Algorithms, Information Retrieval, Operating

Osmania University, Hyderabad **September 2010 - June 2014**

- B.E. in Information Technology, In-major GPA: 3.4
- **UNDERGRADUATE COURSEWORK**: Algorithms, Programming Languages, Web Technologies, Databases, Discrete Mathematics, Calculus.

LANGUAGES AND TECHNOLOGIES

LANGUAGES: JAVA, PYTHON, SQL, CASSANDRA, JAVA-SCRIPT, HTML/CSS

TECHNOLOGIES & FRAMEWORKS: SPRING MVC, J-UNIT 4.0, MYSQL, ELASTICSEARCH, ECLIPSE, ANDROID STUDIO, TABLEAU, GIT, JMETER

PROJECTS

Privacy Preserving Data Mining Techniques, Semester 4, University at Buffalo

- Implemented a Privacy Preserving version of the Distributed K-Means clustering algorithm over horizontally partitioned data. Security is provided using an Additive Secret Sharing scheme and a Homomorphic encryption algorithm. The protocol is designed to be scalable for a Multi-Party distributed clustering system. Used the Java Socket API for communication and Swing AWT for the interface.

Data Warehousing and OLAP Operations; Semester 3, University at Buffalo

- Implemented a Data Warehouse for clinical and genomic data based on the Bio Star Schema that supports regular and statistical OLAP Operations. Also, implemented several clustering algorithms in Python and the K-means clustering on a single node Hadoop Map Reduce. Implemented several classification algorithms such as K-NN, Decision Tree etc. to classify the Genomic Data.

Multi-Lingual Twitter Data Search and Retrieval; Semester 1, University at Buffalo

- Created an Information Retrieval system for indexing, tokenizing and improving the search results for multi-lingual twitter data. (About 1 GB of data collected over a month). Incorporated the **SOLR** framework for indexing and creating tokens for the tweets. Worked on search engine optimization. Implemented language models such as **VM, BM25** etc.

Exploratory Data Analysis and Data Visualization; Semester 2, University at Buffalo

- Performed EDA on a University dataset (About 1 GB) containing student and infrastructure information over the last 80 years using **Hadoop Map Reduce** to clean the data and obtain information. Data Visualization was done in **Tableau.**

Replicated Key-Value Storage (Dynamo); Semester 2, University at Buffalo

- Implemented replicated key value storage on **Android.** It is a distributed hash table(DHT) built on the concept of **Amazon Dynamo.** Implemented failure detection and handling with concurrency and chain replication

Distributed Hash Table (Chord DHT) Using Android; Semester 2; University at Buffalo

- Implemented a Distributed hash table like Chord DHT in Android for distributed storage with consistency and failure handling. Tested the DHT across multiple AVD's with and without failures.

Messenger Application Using Android; Semester 2; University at Buffalo

- Developed a Messenger application using Android with user chat and broadcast messaging capabilities on a distributed environment. Failure handling was also incorporated.

Stereo Vision-Histogram Equalization-Image Enhancement; Summer 2016, University at Buffalo

- Worked on 1D and 2D convolution of images, Histogram Equalization and generation and also some image enhancement techniques and implemented a few block matching techniques and image filters.