ADITYA DEVENDRA PANDEY

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Academic Background

Master of Science - Computer Science - GPA: 3.67/4.0 Graduation: May 2018
University of Texas, Arlington
Bachelor of Engineering - Computer Engineering - GPA: 7.08/10.0 Graduation: May 2016
University of Mumbai, Xavier Institute of Engineering - Mumbai, India

Computing Skills

- **Programming Languages**: Python, C, Java, C++, JavaScript, PHP, HTML5, Assembly, Arduino
- **Statistical Language Tool**: R Programming, MATLAB
- **Web and Application Frameworks**: Android Studio, Flask
- **Software**: Microsoft Office, Microsoft Windows, Linux
- **Database**: Oracle, SQL**,** Minibase, AWS RDS
- **Currently Experimenting**: Node.js, AngularJS, MongoDB, Python, Ruby
- **Cloud**: IBM Bluemix, EC2, S3, RDS, Azure, EB, ElastiCache

Projects

Hadoop Map/Reduce Implementation

- We used Hadoop Map/Reduce Paradigm on a dataset which consists of weather data gathered on an hourly basis for Texas State form year 2005 to 2011.
- We implemented a custom sort algorithm to sort the temperature data and we also implemented sampling technique to determine the non-uniform temperature ranges and sorted accordingly.
- Number of cores on the underlying hardware system was used to determine the number of Mappers and Reducers.

Concurrency Control Transaction Manager

- The Transaction Manager manages concurrency control using strict 2-phase locking protocol with shared lock for read operations and exclusive locks for write operations.
- Also, we had to implement a pool of mutex's, semaphores and condition variables to ensure the operations belonging to the same transactions are executed in proper order.

B+ Tree Implementation

- Developed a complete B+ Tree data structure in Minibase database system.
- Java Programming was used as a tool to hardcode and synchronize the Minibase Libraries into the project.

Final Year Project: Mobile Anti-Theft System

- An Android client application project based on GPS satellite tracking system.
- It had the following key features- Switch to General mode from Silent mode, Raising an Alarm, Receiving notification on SIM card change, Content Deletion, Activation of MIC, Getting GPS location

Virtual Treasure Hunt

- Developed a virtual treasure hunt game website for the Xavier Institute of Engineering College's technical festival, Transmission, using HTML, CSS, JavaScript, PHP and MySQL.
- The website had features like quiz and image reverse search.

Open Source

- For a non-profit organization, installation and configuration of an email server was done.
- A web interface was setup for the server configuration in a competitive coding event, Hackathon.

Query Optimizer

- Given a raw un-optimized query as input, it creates a query tree and then optimizes it.
- After optimization, it then generates the optimized query tree.

Professional Experience

Summer Internship June 2016 – Cloudstrats Technologies, Mumbai, India

- Developed an Android application "XFix Services", a product of Cloudstrats Technologies which provides the interface between the customers and the services that the company provides.
- Developed a website for the company product "XFix Services".
- Was part of the database Migration project from Gmail to Office365.
- Developed an understanding on Oracle database and further analyzed large and complex datasets to complete projects provided by the company.
- Worked on two projects of developing websites for the clients.