Mohan S. Deshpande

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Summary

- 3+ years of experience writing clean, efficient and optimized code in Python, Java and JavaScript
- 1+ year of experience in Data analysis, Data cleansing, Big data technologies, Data Pipeline and Cloud technologies

Education

M.S. in Computer Science, The University of Texas at Arlington (August 2018- May 2020) **GPA:3.8/4.00**
Bachelor of Engineering in Information Technology, Pune University (June 2013-May 2017) **GPA:3.4/4.00**

Technical skills

Languages: Python, Java, C++, JavaScript, PHP, CSS
Web Technologies: Rest API, ReactJS, Laravel, NodeJS
Big data frameworks: MapReduce, Spark, Apache Beam
Cloud Computing: Google Cloud Platform (GCP), AWS
Database: SQL, NoSQL, MongoDB
Misc.: Kubernetes, Docker, Software development Life Cycle

Experience

GRADUATE RESEARCH ASSISTANT | CSE DEPT. AT UTA **July 2020-Present**

- Lead a 3-person team to develop core functionalities for an online learning platform(http://staging.miabcescuela.com/en) by Dr. Diaz of CSE Dept, using **Laravel 7, PHP, and MySql.**
- Improved the responsiveness and rendering time of the site by **20%** using Yajrabox DataTables and HTML Builder.
- Designed **database schema** and developed core **CRUD** operations for multiple modules.

WEB DEVELOPER TRAINEE | WEBWIDE IT SOLUTIONS, PUNE INDIA **May 2016-Nov 2016**

- Developed a POC to migrate operational Fleet management codebase into **React js.**
- Increased render times by **20%** using stateful components.
- Undertook initial project structure setup such as configuring **redux,** incorporating Google Maps API to represent GPS tracking.
- Implemented chart-based dashboard using Highcharts library to gain more logical insights.

Projects

BIG DATA ANALYSIS | JAVA **Nov 2018**

- Analyzed over **4 million** movie titles within IMDB dataset using **Hadoop map-reduce** framework in **Java,** to develop programs and provide interesting insights.
- Improved computation time by **15%** using in mapper combiners, as well as multiple mappers to optimize the program.
- Implemented the project on a cluster of **2000 nodes** and analyzed run times by leveraging the knowledge of multi-threaded implementation, optimizing shuffle operation, and partitioning function, as well as fault tolerance of framework.

REAL ESTATE PRICING WEB APPLICATION | JAVASCRIPT, AJAX **Oct 2019**

- Developed a simple real estate marketplace to easily search listings, get housing prices, and to locate the house on a map.
- Used **Zillow API** and **Google maps API** to display a clickable map area: showing the postal address and house price, when clicked on the map or searched for the address.
- Developed the web frontend using **JavaScript** and **AJAX**.

GRAPH PROCESSING | SPARK, SCALA **April 2019**

- Utilized **Spark framework** in **Scala** for graph processing to output the connected components within a dataset containing over **100,000** graph vertices.
- Achieved cleaner code by using spark transformations like **reduceByKey, flat-map, join, and map**.
- Implemented the project on a distributed system in a cluster of **2000** nodes.

ETL DATA PIPELINE | PYTHON, GCP **Oct 2018**

- Built an automated, scalable ETL data pipeline using Google Cloud Dataflow, Apache Beam, Pub/Sub, BigQuery and Data Studio to analyze and visualize big dataset.
- Simulated real time streaming as well as batch processing using Google Cloud templet, Apache beam and Pub/Sub.
- Scheduled cron jobs and Google Cloud Functions to automate data extraction and running the pipeline weekly.

WEB-CHATTING APPLICATION | PHP, MYSQL **Nov 2019**

- Developed a web-chatting application containing multiple functionalities such as user login, message posting, and replying to messages, using **PHP**.
- Used **PDO** extension of PHP in the backend to store and retrieve messages as well as user database, using **MySql**.