Dhiraj Ramnani

Solve the problem. Write the code

(323)989-7158 | dramnani@usc.edu
github.com/dhirajhr | linkedin.com/in/dhirajhr

EDUCATION

University of Southern California (USC), Los Angeles, CA Aug 2017 – May 2019
M.S. Computer Science **GPA: 3.72/4.0**
Coursework: Algorithms, Database Systems, Information Retrieval and Search Engines, Data Mining, NLP, Artificial Intelligence

Gujarat Technological University, India Jun 2013 – May 2017
B.E. Computer Engineering **GPA: 3.9/4.0**

SKILLS

Languages: Java, Python, Scala, C++, JavaScript, SQL
Web Technologies: Spring, Node.js, HTML PHP, AngularJS, React
Databases: MySQL, PostgreSQL, MongoDB, DynamoDB, Redis
Frameworks: Apache Spark, Hadoop, Hive, Elasticsearch, Kibana
Tools and Cloud: AWS (EC2, S3, Redshift, Lambda, EMR), Kafka, Azure, Docker, TensorFlow, Git

WORK EXPERIENCE

USC Integrated Media Systems Center | Graduate Student Researcher Feb 2019 – Present
Spark Streaming | Scala | MongoDB | Sensor Infrastructure

- Extracted insights from data attained by Archived Data Management System project (funded by LA County Metro).
- Utilized **Spark Streaming** to analyze incoming data streams from Freeway Traffic Sensors and persisted the results to MongoDB.
- Configured a network of 5 Kafka Brokers and employed Kafka Consumer to retrieve data stream from 1400 Traffic Sensors per sec.

Warner Bros. | Software Engineering Intern – Data Intelligence May 2018 – Aug 2018
Java | Spring Framework | RESTful Web Services | Spark | Scala | AWS | AngularJS

- Deployed a Web Service which delivers Near-real time Movie Recommendations on an interactive dashboard.
- Developed a REST API (**Spring**) and a scalable Front-end (AngularJS) to record User Ratings and employed MySQL to store the data.
- Scheduled Spark jobs through Spring Boot application in order to refresh recommendations every 20 minutes.
- Utilized Spark MLlib to implement Collaborative Filtering and reduced the **Spark** Job execution time from 600 sec to 100 sec.

Astar Technologies | Software Engineering Intern Jul 2016 – Dec 2016
JavaScript | Node.js | REST API | MongoDB

- Designed Node.js RESTful API which allowed the Marketing team to communicate with the Customers using Twilio SMS Integration.
- Employed **MongoDB** to store Customer Feedbacks and performed Sentiment Analysis upon the feedbacks.
- Attained the average Customer Response rate of 42% and visualized the performance metrics on a real-time dashboard (React).

PROJECTS

Yelp Recommender System Aug 2018 – Nov 2018
Scala | Apache Spark | Neo4j

- Leveraged Apache Spark and **Scala** to develop a large-scale Recommender System for Yelp Dataset (10 Million Records).
- Employed Item-to-Item Collaborative Filtering Technique (RMSE: 1.08) to recommend restaurants to users.
- Constructed a Social Graph Network (Neo4j) of Users to determine Influential entities by employing PageRank Algorithm.

Framework for Twitter Bot Detection Mar 2018 – May 2018
Python | Apache Spark | Machine Learning | Natural Language Processing

- Utilized Spark Streaming to stream Twitter Data and ingested tweets into **Hbase**. (Data: 1000 users and 3000 tweets per user)
- Extracted Tweet Semantics, User Profile Features and Periodic Features which represent Twitter data effectively.
- Segregated data into training and test sets (70%-30%) and attained 72% F1 Score by performing Decision Tree based classification.

Linking Supply and Demand of Skills – Web Application Sep 2017 – Feb 2018
Java | AngularJS | RESTful Web Services

- Developed a LinkedIn analogous Web Application to bridge the gap between the potential employers & skilled low-profile workers.
- Implemented modules for Location-based Search with Google Maps Geolocation API, and Payment Gateway using PayUMoney API.
- Orchestrated RESTful Web services using Dropwizard Framework and incorporated Google Translate based Multi-language support.

MENTORSHIP & ACHIEVEMENTS

Teaching Assistant, CSCI 360 (AI) - Designed a Python Script to automate grading of programming assignments. Jan 2019
Coordinator, Big Data Day LA – Managed the Sessions Team of the Conference with more than 1000 attendees Aug 2018
Winner, USC ACM Hackathon - Built a Web App to search within a Video. Apr 2018