Vyshaal Narayanam

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Skills

Languages	Java, Python, C, SQL, NoSQL
Big Data	Hadoop, MapReduce, Spark, Elasticsearch, Airflow, MySQL, MongoDB
Data Analysis	pandas, NumPy, scikit-learn, beautifulsoup, selenium, gensim, plotly, NLTK, re
Web Technologies	Javascript, Angular, Express, Node, RESTful, Spring, Hibernate, Flask
Tools	Git, Linux, Postman, Maven, npm, Jenkins, Jira, AWS

Professional Experience

Data Engineering Fellow, Insight Data Science, Boston, MA   Jan 2019 - Present
- Developed a **Flask** application that allows manufacturers to learn **Consumer Insights** for product enhancements
- Architected a distributed data pipeline that utilizes *Amazon Customer Reviews* of *size 80GB* and updates indices
- Introduced customized tweaks to **Elasticsearch** indices to improve search relevance on the product reviews

Data Analytics Co-op, Natixis Investment Managers, Boston, MA   Jan 2018 - Jun 2018
- Built a **Risk Dynamic Framework** to analyze risk exposure of market signals on a security using ML techniques
- Productionized the above model to examine all the client portfolios at the fund level
- Ranked securities within a *Morningstar Category* by computing performance metrics over the period of *10 years*
- Automated generation of customized powerpoint reports, thereby saving *15 minutes* of an analyst time per client

Teaching Assistant, Northeastern University, Boston, MA   Fall 2016, Fall 2017
- Tutored students to help them understand concepts of **Discrete Mathematics** and problem solving techniques
- Organized recitations in batches of *30 students* and conducted in-class activities to improve student engagement

Software Developer, ZapStitch Technologies, Bangalore, India   Apr 2015 - Apr 2016
- Developed integrations to automate data flow across cloud applications in different domains using their APIs
- Involved in all areas of development including design, coding, test cases, deployment, triaging and fixing issues

Academic Projects

MapReduce - Parallel Data Processing   Sep 2017 - Dec 2017
- Found temperature variations of stations using different design patterns in **MapReduce** Framework on **EMR**
- Implemented *Random Surfer Model* using **PageRank** algorithm in MapReduce to rank *Wikipedia* articles

Yelp Review Analysis - Data Mining   Sep 2017 - Dec 2017
- Discovered latent topics in positive and negative restaurant reviews from Yelp dataset by running LDA algorithm.
- Estimated optimal number of topics using **Topic Coherence** score to obtain meaningful and interpretable results.
- Utilized *Google Cloud Natural Language API* to perform **Sentiment Analysis** of restaurant reviews.

Boston Public Schools - Software Engineering   May 2017 - Jun 2017
- Performed *Clustering Algorithm* **AGNES** on schools to assign bell timings and minimize deadhead time of buses
- Utilized *Google Distance Matrix API* to find the time taken to travel between the stops for *Hierarchical clustering*

Text Based Search Engine - Information Retrieval   Sep 2016 - Dec 2016
- Built Information Retrieval Systems using **TF-IDF**, **Cosine Similarity** and **BM25** models on *CACM dataset*
- Evaluated their performance levels in terms of retrieval effectiveness by computing metrics like *Precision*, *Recall*
- Performed query expansion using *pseudo relevance feedback technique* to overcome **Synonymy**

Education

Northeastern University, Boston, MA   Sep 2016 - Dec 2018
M.S. in Computer Science
Coursework: Algorithms, Information Retrieval, Parallel Data Processing, Software Development, Web Development

Dhirubhai Ambani Institute of ICT, Gandhinagar, India   Jul 2011 - May 2015
B.Tech in Information Technology
Coursework: Object Oriented Design, Algorithms & Data Structures, Database Management, Operating Systems