RAJESH MARUDHACHALAM





JP Morgan Chase & Co
Bengaluru, India

Software Engineer 2, Wealth Management

- January, 2022 Present
- Accolades: Recognised under 'Execution Excellence' category for Q1 2022.
- Setup a Hadoop datalake that involves storing data in the Hadoop Distributed File Syste comprising of multiple clustered compute nodes. This is principally used to process and store relational and nonrelational data. This architecture is designed to for analytics applications, supporting a variety of structured, unstructured and semi-structured data making them more suitable for certain operations than narrowly focused data warehouses.
- o Developing a transformer NN to predict Fund Advisor attrition metrics using Tensorflow on AWS Sagemaker.
- Built a datalake in AWS using Redshift & S3 which will act as a one stop shop for all the data needed to solve business problems, and developed a custom spark based ETL framework that runs on Amazon EKS to ingest data into the former.
- Software Engineer, Wealth Management

August, 2020 - January 2022

- o Accolades: Recognised under 'Execution Excellence' category for Q4 2020.
- Collaborated with product managers, data scientists & analysts and designed a data-lake with data extracts from multiple sources as coherent and meaningful information to solve the intended business problem.
- Solely developed custom ETL framework handles ingestion & transformation of terabytes of data on daily basis using metadata - using PySpark supports structured & unstructured data and connections with databases, APIs, flat-files, json and HDFS to pump data into the data-lake. This framework additionally performs check for inconsistencies (schema changes) & data gaps and sends this as data reports to the users.
- Created various SQL queries that can be used by business for on-demand data insights on MapReduce and MPP systems. Also created pipelines to feed the huge chunks of data from the data-lake to BI tools like Qlik.
- o Developed Big data reconciliation system to perform data quality checks as a part of database migration.
- Software Engineer Intern, Asset Management

January, 2020 - July, 2020

- o **Accolades:** Recognised as one of the top 6 performers among the Asia-Pacific interns.
- Developed intricate ML algorithm based on predictive data modelling of market instruments using regression.
 Reduced the runtime by 6 folds when compared to the previous rules-based JAVA engine.
- Built a React/Redux based dashboard currently being used by the asset management team across JP Morgan. This acts as a one-stop web portal using React.js, that replaces the existing MS-Excel reports, thus making it much easier and more efficient for the end user to consume the same data. This multi-page and multi-section dashboard along with 'filter' functionality were build using the famous concepts React-Router & Redux. For each section of the dashboard, there happens a GET call to get data using the 'fetch' API. This dashboard also caches the data already fetched from API calls in an active session, and uses it to dynamically to replace an API call when the user tried to hit an already hit API endpoint

Heptagon Technologies Pvt Ltd

Bengaluru, India

• Data Science Summer Intern

April, 2019 - May, 2019

 Developed a model to determine the sentiment polarity of the data fetched from Twitter API. Developed python scripts to extract tweets and comments from Twitter, and performed NLP based Tokenization, Lemmatization, Vectorization and created higher dimensional word embeddings to capture fine grained relationships between tokens.

Acumen Technology Pvt Ltd

Chennai, India

Web Development Summer Intern

April, 2017 - June, 2017

 Developed smooth and seamless login interfaces using HTML, CSS, PHP and Bootstrap, and reduced the overall webpage load time from 1.7 seconds to 0.6 seconds.

Education

Vellore Institute of Technology, Vellore, India

2016-2020

Bachelor of Technology, Computer Science and Engineering

CGPA: 9.27/10.0

Accolades: Merit Scholarship for Academic Excellence

Sri Chaitanya Educational Institute, Bengaluru, India

2012-2016

12th grade, Higher Secondary School

Percentage: 94.7/100



ML Libraries/Frameworks: Psycopg2, Numpy, Pandas, Scipy, Scikit-Learn, Matplotlib, GGPlot, Keras, Tensorflow, Nltk

Big-Data Technologies/Frameworks: Hadoop (Sentry & Ranger), PySpark, HiveQL, Impala, Kafka, Sqoop

AWS services: Lambda, EKS, Redshift, Sagemaker, EC2, Cloudformation

Databases: MySQL, PostgreSQL, SQL Server, Oracle (LDAP & Kerberos), MariaDB

Others: Git, Unix/Linux, React.js, HTML5, CSS3

Publications

• Selvakumar K, **Rajesh M**, Eshwar S, Shraveen B.S, 'YouTube Video Ranking: An NLP based system', *IJRTE, Vol-8 Issue-4, 2019, Page-1370-1375.* (SCOPUS)

Rajesh M, 'Prediction of Survivors in the Titanic Cruise', IJRTE, Vol-8 Issue-3, 2019, Page-1268-1271. (SCOPUS)

Certifications

AWS Certified Developer Associate, AWS [view credential]

Tensorflow Developer, Deeplearning.ai [view credential]

Deep Learning Specialization, Deeplearning.ai [view credential]

Applied Data Science Specialization, IBM - Coursera [view credential]

Python for Everybody, University of Michigan [view credential]

January 2022

September 2021

June 2021 September 2020

July 2019