Sreenivasa Radha Krishnan Rayaprolu

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Education

George Mason University — Fairfax, Virginia
Masters of Science - Computer Science (Concentration in Machine Learning) — August 2021 - May 2023
Courses: *Massive Data Mining, Advanced Natural Language Processing, Computer Vision, Machine Learning*

SCSVMV University — India
Bachelor of Engineering - Computer Science — August 2017 - April 2021

Skills Summary

- **Languages** Python, R, C, C++, JavaScript, JAVA, C#, Dart, SQL, GO, Scala
- **Databases** MySQL, PostgreSQL, MongoDB, GraphQL
- **ML Libraries** TensorFlow, Pytorch, SpaCy, OpenCV, HuggingFace, PySpark
- **Big Data** Apache Spark, MapReduce, Hadoop, HDFS, Databricks, AWS ElasticMapReduce
- **Web Development** HTML, CSS, AJAX, Angular, jQuery, JEE, Flask, NodeJS, REST, SOAP, Spring Boot
- **Cloud & Devops** AWS, Azure ,GCP, Git, Maven, Gradle, Kubernetes, Docker, Jenkins, Rancher, Terraform

Work Experience

School of Business, George Mason University — Fairfax
Data Scientist (Part-time) — August 2021 - Present
- **Design and Implement ETL pipelines** Developed and implemented data pipelines and ETL processes for ingesting and processing large amounts of Business data from AWS S3 storage.
- **Data Cleaning and Feature Engineering** Performed data cleaning, pre-processing tasks such as handling missing values, removing duplicates, and correcting data errors, and implemented validation checks to ensure data quality and consistency.
- **Parallelized Computation** Leveraged a High Performance Computing (HPC) cluster by developing and executing SLURM scripts to distribute computationally intensive tasks in parallel.
- **Research and Analysis on Business Reports** Applied advanced natural language processing techniques to analyze EDGAR 10-K & 10-Q business reports of various companies, including text classification, named entity recognition & text summarization using custom trained BERT and Transformers.

College of Education and Human Development, George Mason University — Fairfax
Graduate Research Assistant (Part-time) — August 2021 - Present
- **Teaching Assistance** Providing assistance in setting up the environment and delivering the weekly content for Praxis Certification Exam and AWS Cloud Practitioner Certification.
- **Research on Education Methodologies** Verifying existing educational methodologies with Machine Learning algorithms on large datasets and formulate statistical conclusions on them.

Indian Institute of Technology — Mumbai, India
Research Assistant (Part-time) — December 2020 - June 2021
- **Research Project** Researched and developed solutions for Attention-based Optical Character Recognition for handwritten application forms. Conquering the challenges of background text, boxes, random scribbles in the form, etc. Achieved an accuracy about ∼80%. Tech: Pytorch, Linux, shell programming, Cv2.
- **Statistical Analysis** Worked on joint Project with Indian Space Research Organisation on a Cyclone estimation Techniques. Experimented with various regression techniques after data processing.

Projects

Crypto Wallet
Crypto Currency Portfolio with Predictive Analytics for Investors
- Developed an ETL pipeline for sourcing and storing data from Crypto APIs into S3 buckets using Python and Apache Airflow. Analyzed and made predictions on the data using PySpark ML models.
- Implemented a web application using Angular and Flask to present the portfolio and predictions to investors.
- Deployed the Dockerized application on Google Kubernetes Engine using Rancher installed on AWS EC2.
- **Gained experience in dealing with massive data and data engineering concepts and various technologies including Python, PySpark, Apache Airflow. Got real-time hands on DevOps tools and learnt to deploy applications on cross cloud platforms for cost optimization.**

Awards

- **Winner - Microsoft Track, PatriotHacks 2022** Designed and developed a reusable Progressive Web Application for emergency evacuation with crowd-sourced geospatial intelligence and versatile RESTful APIs.

- **Runner - CAHMP, GMU - Entrepreneurship Challenge 2022** Conducted market research, developed a startup concept, and presented it to industry experts and venture capitalists for evaluation.