Ieshaan Sharmaa

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Summary

Experienced Data Scientist adept in predictive modeling, statistical analysis, and machine learning algorithms. Skilled in data visualization and storytelling, with expertise in Python and R programming. Passionate about leveraging data-driven insights to solve complex problems and drive business outcomes.

Professional Experience

Data Scientist, ITVorks, Seattle, WA Aug 2023 – Present

- Implemented **healthcare fraud detection** mechanisms using **AWS Fraud Detector**, resulting in a **70% decrease in false alarms** for detecting fraudulent billing practices, significantly reducing financial losses due to healthcare fraud.
- **Predicted patient medication adherence** using **AWS Forecast**, resulting in a **20% increase in adherence rates** through personalized interventions based on predictive analytics insights, thereby improving patient outcomes, and reducing readmission rates.
- Optimized **healthcare supply chain** operations with **AWS IoT Core, achieving a 15% reduction in costs** through demand forecasting and predictive analytics-driven procurement strategies, ensuring timely availability of medical resources.
- Analyzed healthcare resource data on AWS Redshift using QuickSight, uncovering inefficiencies. Resulted in a 15% decrease in ER wait times and a 10% increase in hospital bed occupancy.

Data Analyst, Amazon Web Service, Seattle, WA July 2022 – July 2023

- Conducted scalable data storage solutions in **Amazon S3**, accommodating a **50% increase in data volume** without a proportional rise in storage costs.
- Orchestrated a **robust patching solution** for AWS EC2 instances, resulting in **a 40% reduction in vulnerability exposure** by ensuring timely application of security patches across the entire EC2 fleet.
- Monitored and **audited SQL scripts & and jobs in DBT** to analyze the performance and efficiency of run time of the jobs, and recommended changes resulting in **performance improvement by 23%** (cost savings $118K annually).
- Implemented **AWS Lake Formation** to streamline and manage data lakes efficiently. This initiative improved data accessibility, governance, and security, resulting in a **20% reduction in data management overhead.**

Data Scientist, Peacock Solar, Gurgaon, India Jan 2020 - Sept 2020

- Leveraged data analysis techniques and feature engineering strategies to increase solar panel efficiency by 15%, resulting in a substantial annual energy generation increase of 5,000 MWh and advancing sustainable energy production goals.
- Enhanced solar panel efficiency by 15% through data analysis and optimization of panel positioning and orientation, resulting in an annual **energy generation increase of 5,000 MWh**.
- Developed **predictive models to forecast solar energy generation** based on weather patterns, solar irradiance, and other environmental factors. **Improved accuracy by 20%**, enabling better grid management and resource allocation.
- Utilized data analytics to optimize energy storage systems, **improving the efficiency of battery charging** and discharging cycles. **Reduced energy storage costs by 10%** while increasing the reliability of renewable energy supply.

Data Scientist, BLP Industry.AI, Bengaluru, India Jun 2018 - Jan 2020

- Implemented predictive modeling and statistical analysis techniques with an AD Inverter Deterioration model for Tata Solar, **improving solar power production by 10% and achieving an AUC of ~0.83 on AWS EC2** using PySpark.
- **Increased wind turbine efficiency by 12%** using DBSCAN clustering, resulting in an annual energy generation boost of 10,000 MWh.
- Optimized renewable energy forecasting models with Python, **reducing forecast error by 25%** and enabling better resource allocation, **saving ₹100,000 annually**.
- Conducted analysis on weather data and solar irradiance patterns, optimizing solar panel positioning and causing a **12% increase in energy generation and ₹500,000 annual revenue boost**.

Core Competencies

- **Programming**: Python, R, SQL, and C.
- **Visualization**: Looker, Tableau, Power BI, Qlik, Shiny, Google Sheets, Excel VBA, Chart.js Google Charts, Grafana
- **Technical:** Machine Learning, Data Analysis, A/B Testing, Apache Spark, Python, R, Data Science, Microsoft Excel, SQL, ETL Pipeline, MATLAB, Regression, Docker, Kubernetes, CI/CD, Kafka, Data Modelling(V-look Ups, Advanced Excel)
- **Database Systems:** Relational Database, PostgreSQL, MySQL, SQL, NoSQL, Database, MongoDB, Cassandra, Redis, Data Warehousing, Amazon Redshift, Google Big Query, Snowflake, IBM Db2
- **Big Data Technologies:** Hadoop, Map Reduce, Pig, Hive, DBT, DevOps, Terraform, Apache Airflow, Elasticsearch
- **Cloud Technologies:** Amazon Web Service, S3, EC2, Lambda, AWS Glue, EMR, Dynamo DB, AWS Athena, Microsoft Azure, Blob, GCP, Big Query, Big Table, Google Cloud Storage, HBase

Education

University at Buffalo, The State University of New York — Buffalo, NY
Master of Science in Engineering Science(Data Science) — Jan 2021

SRM University — Chennai, India
Bachelor of Technology in Computer Science Engineering — May 2018