

# Ishaan Sharmaa

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## Summary

Experienced Data Engineer proficient in data pipelines, analytical modeling, and data warehousing optimization. Skilled in ETL/ELT processes, data modeling, and BI tools like Looker/Tableau. Expertise in leveraging dbt and Snowflake to drive actionable insights.

## Professional Experience

### Data Engineer II, ITVorks, Seattle, WA

Aug 2023 - Present

- Implemented AWS Glue for ETL pipelines, resulting in a **30% decrease in data ingestion latency**, enhancing real-time analytics capabilities for critical patient data.
- Capitalized **AWS S3 lifecycle policies coupled with Glacier storage** for archiving historical patient records. **Reduced storage costs by 40%** while ensuring compliance with data retention regulations.
- Migrated legacy on-premises data processing workflows** to serverless architectures leveraging AWS Glue and AWS Lambda. **Achieved a 30% reduction in infrastructure costs** while maintaining scalability and reliability, enabling efficient utilization of healthcare company resources.
- Optimized **AWS Lambda functions** and **Amazon Kinesis Data Firehose** to **reduce the latency** of real-time patient monitoring **data ingestion by 40%**.

### 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).
- Utilized **AWS Athena for ad-hoc querying**, providing data analysts with quick insights and **reducing query response time by 35%**.

### Data Engineer I, Peacock Solar, Gurgaon, India

Jan 2020 - Sept 2020

- Enhanced solar panel efficiency by 15% through data analysis and optimization of panel positioning and orientation. This resulted in an annual **energy generation increase of 5,000 MWh**.
- Designed an **ETL workflow with AWS Glue** to integrate data from multiple sources, **resulting in a 30% reduction in data integration time** and improving data availability for analysis by 25%.
- Reduced data replication latency by 50%** through high-speed and secure cross-region data transfers **using AWS DataSync**. Enhanced data availability and disaster recovery capabilities, achieving a 99.99% data replication accuracy rate.
- Deployed AWS IoT Analytics for detecting and diagnosing faults** in solar panel systems based on historical performance data and machine reduce **mean time to repair (MTTR) by 30%** through automated fault detection alerts and root cause analysis.

### Data Engineer, BLP Industry.AI, Bengaluru, India

Jun 2018 - Jan 2020

- Implemented 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 python libraries and 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, Adobe Analytics, 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:** S3, EC2, Lambda, AWS Glue, EMR, Dynamo DB, AWS Athena, Azure, Blob, GCP, Big Query, Big Table, Google Cloud Storage, HBase

**Education**

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**University at Buffalo, The State University of New York**  
Master of Science in Engineering Science(Data Science)

Buffalo, NY  
Jan 2021

**SRM University**  
Bachelor of Technology in Computer Science Engineering

Chennai, India  
May 2018