

# ARSHDEEP SINGH

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## SUMMARY

Business Intelligence and Data Engineer with **6+ years** of experience in **SQL, AWS QuickSight, Tableau, ETL pipeline development, and statistical analysis**. Skilled in **data modeling, A/B testing, KPI reporting, and customer behavior analytics** to drive **data-driven decision-making and business growth**.

## WORK EXPERIENCE

### Data Engineer

Rutek Systems LLC

Mar 2024 - Present

*Jersey City, New Jersey*

- Built **ETL pipelines** to integrate customer behavior data from web, transactions, and CRM systems, enabling **real-time analytics** for engagement trends.
- Designed and executed **A/B tests** on marketing campaigns, optimizing **ad spend and increasing ROI by 18%**.
- Developed a Python-based **K-means clustering model** for customer segmentation, increasing **personalized content engagement by 25%**.
- Optimized **Redshift query efficiency by 30%**, reducing **BI report load times from 8 minutes to 3 minutes**.

### Research Assistant

IT Lab, University of Texas at Arlington

Jan 2022 - Jan 2024

*Arlington, Texas*

- Designed and optimized **Hadoop & Spark-based big data processing** for a **multi-million-row datasets**, improving data processing efficiency by **46%**.
- Developed a novel **graph mining algorithm** for **structure discovery**, enhancing efficiency in large-scale network analysis.

### BI Data Engineer

Cadd Primer

July 2018 - July 2021

*India*

- Built **Tableau** dashboards to analyze customer spending patterns, enhancing **risk assessment** accuracy. Implemented **anomaly detection models**, reducing **fraud incidents by 30%**.
- Automated **feature engineering** and model retraining in **AWS SageMaker**, reducing model update time by **40%**.
- Collaborated with **product and marketing teams** to define **key experiment success metrics (p-value, lift, confidence intervals)**, improving A/B test interpretation and strategic decision-making.
- Built an **automated SQL ETL pipeline** to process **millions of daily transactions**, ensuring **real-time reporting accuracy** and reducing **manual data reconciliation efforts by 35%**.
- Led **A/B testing** for a **loan management app**, identifying **UI changes** that **boosted user engagement by 12%**.

### Data Analyst

Quadrant Televentures Ltd, Videocon Telecom

Jan 2018 - July 2018

*India*

- Built a **Tableau-based monitoring system** to monitor network performance and service disruptions, reducing **failure response time by 33%**.
- Conducted customer behavior analytics using **SQL and Python**, leading to a **20% improvement in customer retention programs**.

## EDUCATION

**M.S. Computer Science (Thesis)**, University of Texas at Arlington

2021 - 2023

**Thesis:** MLN:Ho-SD:: Substructure Discovery In Homogeneous Multilayer Networks Using Decoupling Approach.

**B.E. Electronics and Communication Engineering**, Thapar University

2014 - 2018

## SKILL SET

Data Engineering & Warehousing	SQL (PostgreSQL, MySQL, Redshift), Snowflake, ETL Pipelines
BI & Data Visualization	AWS QuickSight, Tableau, Power BI
Statistical Analysis & Experimentation	A/B Testing, Multivariate Analysis, Regression Modeling
Programming & Data Processing	Python (Pandas, NumPy, SciPy), R, Spark, Hadoop
Cloud & Big Data	AWS (Redshift, S3, Lambda, SageMaker), Snowflake
Performance & Instrumentation	KPI Measurement, Customer Segmentation, Data Quality

## CERTIFICATIONS AND AWARDS

- AWS Certified **Solutions Architect & Machine Learning Engineer** - Associate
- Outstanding Masters Student** - CSE Department, University of Texas at Arlington (2024)