

Sharad Raina

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EDUCATION

Northeastern University

Master of Science, Health Informatics

Cumulative GPA: 4 / 4

Relevant coursework: Biostatistics, Database Modelling and Design, Data Mining Machine Learning, Collecting Storing Retrieving Data

Guru Nanak Dev Dental College & Research Institute

Bachelor of Dental Surgery (B.D.S)

Boston, MA

Apr 2025

Punjab, India

WORK EXPERIENCE

Northeastern University – Bouve College of Health Sciences

Teaching Assistant, DA5020 – Collect/Store/Retrieve Data

Boston, MA

Jan 2025 – Apr 2025

- Supported instruction for a 100-student graduate course covering SQL, data wrangling, web scraping, APIs, forecasting, and introductory machine learning techniques (e.g., kNN).
- Held weekly office hours and provided technical support on Python-based assignments involving data loading, transformation, text processing, and database queries.
- Collaborated with the course instructor to design assessments, grade projects and exams, and provide detailed, actionable feedback across 10+ practical assignments and a final capstone.

Mass General Brigham | Integrated Care Management Department (Icmp).

Data Analyst Intern

Boston, MA

Jun 2024 – Dec 2024

- Developed and maintained 15+ SQL scripts to analyze 4M+ EPIC patient records, enabling automated monthly reporting used by 50+ clinical and operational managers across care programs.
- Designed interactive Tableau dashboards to visualize key performance indicators such as patient outreach, follow-up rates, and ER usage; presented findings to 20+ care leaders, supporting data-driven decisions during monthly strategic reviews.
- Identified 2,000+ high-risk patients by analyzing repeat ER visits and social determinants of health (SDOH); collaborated with social work teams to prioritize outreach and reduce preventable readmissions.
- Led the migration of 100K+ patient records from SQL Server to Snowflake using ETL pipelines and data validation checks; reduced project delivery time by 30% and improved long-term data accuracy for analytics.

Qualtra Pharma Pvt. Ltd

Health Data Analyst Intern

New Delhi, India

Apr 2023 - Aug 2023

- Automated recurring healthcare reporting processes using Python and Power BI, reducing turnaround time by 20% and saving over 5 hours of manual effort each month.
- Analyzed 5 years of regional health data using advanced SQL queries to support decision-making across clinical and operational teams, impacting 500+ patients and consumers.
- Built Python-based ETL pipelines to integrate disparate data sources, enabling unified data views and advanced analytics across business units for strategic planning.

ACADEMIC PROJECTS

Healthcare Risk Analytics Dashboard – SQL, Tableau, R

Mar 2025

- Queried and prepared 50K+ patient records in SQL to build interactive Tableau dashboards visualizing hospitalization risk and adherence trends. Created a risk stratification model in R to flag high-risk cohorts, and benchmarked findings against CDC data to identify gaps in chronic care.

EV Market Intelligence – Tableau, Geospatial & Time-Series Analysis

Feb 2025

- Analyzed 135K+ EV registrations to uncover state-wise trends and barriers to adoption, highlighting California's 2.5x lead. Generated a Tableau dashboard integrating geospatial and demographic insights. Conducted time-series analysis revealing 45% CAGR (2021–23) uncovering trends relevant for future EV market evaluation.

Healthcare Length of Stay Predictor – R, Statistical Modeling

Jan 2025

- Created an ensemble model using Random Forest and XGBoost on 50K+ patient records to predict hospital stay durations, cutting forecast error by 30%. Identified key drivers of long stays via feature importance and validated insights using logistic regression. Presented policy recommendations for bed optimization to an academic panel.

TECHNICAL SKILLS

- Programming & Scripting:** Python (NumPy, Pandas, Scikit-learn), R (tidyverse, caret), SQL
- Database & Querying Tools:** MySQL, Snowflake, Azure Data Studio, SQL Workbench, PostgreSQL
- Data Visualization:** Tableau, Power BI, AWS QuickSight, Matplotlib, Seaborn