Swikriti Dumre

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Education

Smith College BA in Computer Science, BA in Mathematics Statistics — Aug 2024 – May 2028

- GPA: 3.94/4.0
- **Award:** Best Business Pitch, ASA Datafest 2026

Skills

Programming: Python (pandas, NumPy), R, SQL, Java, C++
Statistical-Analytical Methods: Regression, Classification Models, Hypothesis Testing, Machine Learning
Data Analysis & Visualization: Data Cleaning, Feature Engineering, ggplot2
Model Evaluation:ROC Curves, AUC, Accuracy, Precision/Recall
Tools: Git, Salesforce, SnapLogic, MATLAB, OpenCV, PyTorch

Technical Experience

CRM Intern, Smith College ITS – Northampton, MA — May 2025 – Present

- Evaluated 80+ legacy workflow rules using structured analysis to identify redundancies and inefficiencies, and redesigned them to reduce system complexity by 60% through logic-driven Salesforce flows
- Translated stakeholder requirements into structured workflows and reduced risk of system errors during migration by writing test scripts for enterprise data systems

Data Integration Intern, Smith College ITS – Northampton, MA — May 2025 – Aug 2025

- Built integration pipelines using SnapLogic to sync data across platforms that automated 17 slow workflows and saved over 55 hours of work per week.
- Conducted stakeholder consultations to understand the business needs and authored technical documentation for both technical and non-technical audiences.

Student Research Council Nepal – Kathmandu, Nepal — Sept 2023 – Dec 2023

- Developed a transformer-based machine learning model to extract and digitize unstructured textual data to improve data accessibility and downstream analysis
- Optimized OpenCV preprocessing pipelines to reduce noise and improve data quality, decreasing manual workload by 40%

Research Experience

Veterinary & Biological Informatics Lab , Smith College – Northampton, MA — Jan 2026 – Present

- Conduct comparative analysis of mouse and human disease expression to identify key biological markers of variation.
- Implement unsupervised learning algorithms and bio-statistical pipelines to process large-scale RNA-seq datasets.

Projects

Voter Behavior Prediction Model

- Built a logistic regression model to predict infrequent voting using demographic data
- Evaluated performance using ROC/AUC and analyzed classification trade-offs for decision thresholds

Racial Wage Gap Analysis

- Conducted multivariate regression to analyze wage disparities across racial groups
- Controlled for key variables and interpreted coefficients to quantify and explain differences

Brain-Body Scaling Analysis

- Modeled relationship between brain and body size using regression and log transformations
- Assessed model fit and visualized patterns to interpret nonlinear trends in development of brain

Leadership

Publicity Lead, Regional Representative, Smith International Student Organization — Jan 2025 – Present

- Create digital content and promote events to audiences of 1000+, strengthening communication skills across diverse group and organize events, panels, etc to introduce cross-culture growth

President, Junior Division Nepal Organization — Sept 2023 – Sept 2024

- Organized and led weekly programs and coordinated a 7-member team to deliver accessible technology education as a year-long digital literacy initiative reaching more than 500 participants.