# Saumya Varshney

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### **EDUCATION**

Master of Science, Data Analytics

May 2025

San Jose State University, California, USA (GPA - 3.6)

Coursework: Machine Learning, Big Data, Statistics, Deep Learning, Data Visualization & Database Systems.

**Bachelor of Technology, Computer Science and Engineering** 

Jun 2017

Bundelkhand Institute of Engineering and Technology, India (GPA - 3.5)

Coursework: Data Structures, Data Mining & Warehousing, Distributed System & Design of Algorithms.

## TECHNICAL SKILLS

Languages: Python, SQL, NoSQL, Pyspark, Cypher QL, C#

Cloud Platforms: AWS, Snowflake, GCP

Machine Learning: AI/ML Models, NLP, Pytorch, TensorFlow

**Tools/Platforms:** CI/CD, Docker, Google Apps Script, Tableau, Power BI, Microsoft Excel, ASP.NET **Data Warehouse/ETL:** Apache Airflow, Redshift, Google Big Query, AWS Glue, Apache Spark, SSIS, SSRS

#### WORK EXPERIENCE

Student Assistant, San Jose State University, CA

Feb 2024 - Present

- Orchestrated deployment and execution of GPU-accelerated deep learning models on HPC machines using Docker.
- Streamlined lab reservation process by developing **Google App Script** solution, resulting in a seamless and user-friendly booking experience.
- Automated user account management using **PowerShell remoting scripts**, boosting admin efficiency by 90%.

Research Assistant, San Jose State University, CA

May 2024 – Aug 2024

- Integrated an AI-enabled robot dog with ML models, boosting autonomous data processing capabilities by 30%.
- Augmented robot dog's functionality as a voice assistant by training it with LLMs revamping human-robot communication and interaction by 20%.

Application Development Analyst, Accenture Services Pvt Ltd, Bangalore, India

Mar 2021 - Feb 2022

- Led an end-to-end **Azure migration**, navigating complexities to achieve system transition in 3 months using **agile method**.
- Analyzed production environment and collaborated with cross-functional teams to reduce code redundancy, improving throughput by 20%.
- Converted Crystal Reports to SSRS and integrated with SaaS applications, reducing reporting time by 25%.

Project Engineer, Wipro Limited, Hyderabad, India

Feb 2018 - Mar 2021

- Overhauled vital sales and manufacturing application utilizing .Net, C#, SQL scripting, delivering high-quality outcomes.
- Spearheaded enhancement of client's management application backend to boost page load time by 25%.
- Directed software release cycles and implemented feature enhancements, achieving 99% system availability.

### PROJECT EXPERIENCE

Paraphrase Identification using Quora Question Pairs, San Jose State University, Project Link

Spring 2024

- Leveraged NLP with an LSTM model, utilizing word tokenization and embeddings, to achieve 81% accuracy in predicting
  question similarity.
- Performed PCA on embeddings to reduce dimensions by 50% and trained model, improving training efficiency by 30%.

Bay Area VTA Ridership Forecasting, San Jose State University, Project Link

Spring 2024

- Forecasted ridership data with 80% accuracy by integrating weather data and deploying advanced ML models, including Random Forest, Decision Trees, and XGBoost.
- Merged, cleaned, and transformed data, achieving model accuracy by 35%, obtaining high accuracy with XGBoost.

AWS-Enabled Data Pipeline for NOAA Weather Data Analysis, San Jose State University, Project Link Fall

Fall 2023

- Enhanced real-time analytics with **AWS Glue** by automating ETL processes, reducing processing latency by **25%**, and accelerating insights from weather data.
- Boosted efficiency by 20% by integrating **Redshift**, optimizing query performance and storage in weather data pipeline.

Analysis of LinkedIn Job Market Data Using MySQL and MongoDB, San Jose State University, Project Link

Fall 2023

- Conducted SQL and NoSQL analyses on job data, deriving actionable job market insights; enhanced AWS **RDS** performance by **20%** with 3NF ER diagrams.
- Increased database efficiency by 15% with optimized NoSQL/MySQL setups and complex MQL queries, integrated with MongoDB.