

# DEBADRI SANYAL

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## PROFILE

Data Scientist with 3 years of analytical and ETL experience across healthcare and insurance domains. Currently pursuing an MS in Business Analytics at Purdue University, specialising in machine learning, statistical modelling, and scalable data pipelines. Passionate about applying ML and automation to optimise business decisions, improve efficiency, and unlock actionable insights.

**Skills:** Proficient in Python, SQL, Machine Learning, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, PySpark, Hadoop, Data Wrangling, Feature Engineering, Model Evaluation, Statistical Analysis, ETL Pipelines, Git, Jira

**Languages:** English (Professional Proficiency), Bengali (Native), Hindi (Bilingual Proficiency).

## EDUCATION

### Purdue University, Daniels School of Business

*Master of Science in Business Analytics and Information Management, GPA: 3.8/4.0*

West Lafayette, IN

December 2026

### Vellore Institute of Technology

*Bachelor of Technology, GPA: 3.5/4.0*

Electronics and Instrumentation Engineering

Vellore, Tamil Nadu, India

June 2022

## ACADEMIC PROJECTS

### Crop Predictability Monitoring System

#### Agro-Flow

Vellore, Tamil Nadu, India

January 2022 - April 2022

- Led a team to engineer an IoT-based soil analysis system integrating Python, Arduino, and multiple sensors (pH, Moisture, Temp) to provide real-time soil composition data for accurate crop prediction
- Developed machine learning models using multiple regression model to analyze historical soil data, automating crop recommendations and revamping resource utilization for farmers

## PROFESSIONAL EXPERIENCE

### Deloitte USI

#### Lead Tester & ETL Developer: Chron's and Colitis Foundation

Hyderabad, Telangana, India

May 2024 - Present

- Engineered a Patient File Merge automation script leveraging Python, consolidating healthcare data into CSV format and boosting analytics accessibility, increased delivery efficiency by 25%
- Automated data validation processes, cutting manual cycles by 30%, increasing productivity, and decreasing operational costs by 10%, leading to significant improvements in cost-effectiveness

#### Data Analyst, ETL Developer & Tester: Blue Cross Blue Shield of Nebraska

November 2023 - May 2024

- Oversaw end-to-end ETL testing using Informatica IICS and Power-Center, ensuring seamless workflow migration, enhancing data verification with PL/SQL queries to restructure operational efficiency by 25%
- Implemented Tidal Automation for data workflows, reducing migration time by 35%, optimizing system efficiency, and achieving a significant reduction in validation errors

#### Data Analyst, Orchestration Expert, ETL Tester: Prudential Asia Corporation

September 2022 - November 2023

- Orchestrated ETL executions across 10 LBU using Control-M, ensuring efficient data pipeline management and timely delivery for more than 100+ ETL executions
- Streamlined issue resolution through client communications and Jira management for 10+ LBU, optimizing delivery by 20%, earning the SPOT Award for exceptional client handling

## LEADERSHIP ACTIVITIES

### Rotaract Club, VIT

#### Core Member

Vellore, Tamil Nadu, India

June 2022 - April 2024

- Led 20+ social service events in Vellore, educating 500+ underprivileged women and children on financial literacy. Reduced financial fraud by 25% in Vellore through a collaboration with 15 team members.