

Nidhi Umesh Chandarana | Data Engineer

Software Engineer with a focus on full-stack development and data-driven intelligence, crafting scalable systems that merge AI, analytics, and user-centric design

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science

Master of Science in Computer Science, Artificial Intelligence Track

Dec 2025

Cumulative GPA: 3.63/4.00

Mumbai University, Mumbai, India

Bachelor of Technology in Information Technology

May 2023

Cumulative GPA: 3.80/4.00 | **Honors and Awards:** Principal's Award of Excellence, Hall of Fame, Leadership Award

CERTIFICATIONS

Google Cloud Data Analytics, Microsoft Azure Data Fundamentals, Introduction to Generative AI, CodeChef - SQL@Work

TECHNICAL SKILLS

Programming Languages: Python, SQL, Bash, HTML, CSS3, Javascript

Data Engineering & Visualization: Data Modeling, ETL, Excel, PowerBI, TimescaleDB, PostgreSQL, MongoDB, NoSQL

Machine Learning Models: KNN, Random Forest Classifier, SVM

Cloud & APIs: AWS, Google Cloud Platform, Docker, Github, VADER, OpenCV, REST APIs

PROFESSIONAL EXPERIENCE

Data Analyst Intern, Global Health Impact | Binghamton, New York

June 2025 - Present

- Engineered Python + Excel pipelines to transform WHO datasets, improving processing efficiency by 35%
- Automated disease efficacy modeling across multi-sheet inputs, accelerating year-over-year analysis for HIV/TB/NTDs
- Delivered insights powering global health impact reports adopted in ongoing academic publications

Machine Learning Engineer, Thadomal Shahani Engineering College | Mumbai, India

June 2021 – August 2021

- Designed and trained an Indian Sign Language recognition system by conducting a **comparative analysis of algorithms (SVM, KNN, Random Forest)**, identifying Random Forest as the optimal model with **99.54% accuracy**
- Designed a bilingual (Hindi–English) ISL keyboard converting signs to text/audio for accessibility
- Published findings in [IEEE](#) Journal and presented demo on [YouTube](#) showcasing technical communication

TECHNICAL PROJECT

Retail Sales Data Pipeline & Analytics Warehouse

February 2025 – April 2025

- Designed and built a Retail Sales Data Pipeline & Analytics Warehouse to address the challenge of **analyzing large volumes of raw e-commerce transactions** by transforming them into clean, structured insights
- Developed an **automated ETL pipeline** in Python to ingest and **transform 1M+ sales records** from Kaggle's Olist dataset, loading into a PostgreSQL data warehouse with a star schema, and optimized SQL queries for efficient analytics
- Delivered **interactive dashboards (Tableau/QuickSight)** that **surfaced KPIs** like sales growth, top products, and customer behavior, **enabling near real-time business insights** and **reducing query time by ~40%**

Real-Time Data Pipeline Across Reddit & 4chan [Github](#)

August 2024 – December 2024

- Architected and implemented a **real-time data pipeline** to collect and analyze discussions on domestic violence and sexual assault from Reddit and 4chan using OAuth2 and HTTP APIs, **processing over 4.6 million posts**
- Designed a scalable producer-consumer architecture with **Faktoy for task distribution**, **integrating TimescaleDB** for efficient data storage and retrieval
- Integrated sentiment analysis with VADER and toxicity detection via the ModerateHatespeech API, providing actionable insights on emotional patterns and harmful content for the University's Dean of Students office

Frigo – Smart Fridge App (Full Stack)

October 2022 – November 2022

- Developed a smart fridge system to track groceries, monitor expiration dates, and send timely alerts
- Built RESTful APIs with Flask to manage user inputs and ingredient data, backed by MySQL for structured storage
- Connected external recipe APIs to provide dynamic meal suggestions based on fridge contents and personalized dietary preferences

LEADERSHIP EXPERIENCE

Binghamton University Dining Services, Student Manager

May 2025 – Present

- Leading a team of 10-12 student workers, managing daily operations, alongside overseeing smooth coordination between staff and supervisors, training new team members, and addressing operational issues in a fast-paced environment.