Atul Bhardwaj

9990816404 | Gmail | Linkedin | Github | Portfolio

Education

S.R.M Institute of Science and Technology Kattankulathur, Tamil Nadu
Bachelor of Technology in Computer Science with specialization in IOT *Aug. 2024 – May 2028*

CGPA - 8.75

Experience

Research Project (Under Professor Consultation) Jan 2025 – April 2025
Smart Bin: AI-Based Waste Classification System

- Developed an AI-powered waste classification system using image recognition to identify and segregate recyclable and non-recyclable waste.
- Trained and evaluated deep learning models for object detection to improve waste sorting accuracy.
- Integrated the system into a prototype application to promote smart waste management and environmental sustainability.

AI Developer – Smart India Hackathon (Internal Round)

- Selected among top teams in college for the **Smart India Hackathon 2025 Internal Round**.
- Built a **safety prediction platform** to analyze crime trends and detect anomalies in tourist areas
- Used **PyTorch & Machine Learning models** for anomaly detection and risk prediction.

Projects

Identity Lakehouse | *Apache Spark, Delta Lake, Airflow, Docker, SQL* Jan 2026 - Present

- Built a scalable data lakehouse for Aadhaar and government scheme datasets to enable data-driven insights.
- Implemented Medallion architecture (Bronze–Silver–Gold) using Apache Spark and Delta Lake.
- Performed data cleaning, deduplication, and schema normalization in the Silver layer.
- Created analytics-ready Gold tables for demographic and regional trend analysis.
- Automated ETL pipelines using Apache Airflow and containerized workflows with Docker.
- **GitHub:** https://github.com/atulbhardwaj-io/IdentityLakeHouse

Revenue Intelligence Engine – SQL Data Warehouse | SQL, ETL, Data Modeling Jan 2026

- Built an end-to-end SQL Data Warehouse to unify fragmented ERP and CRM sales data from CSV sources.
- Implemented Medallion architecture (Bronze–Silver–Gold) with ETL pipelines for ingestion and cleansing.
- Designed Star Schema (fact & dimension tables) to generate reliable revenue and customer insights.
- **GitHub:** https://github.com/atulbhardwaj-io/sql$_d ata_w arehouse$

EcoSentry AI | *ML, Google Earth Engine, GCP, FastAPI, Scikit-Learn* | Link March 2025 - May 2025

- Developed an AI-driven web platform to predict forest fires in real-time across global locations using satellite data.
- Trained machine learning models on MODIS Land Cover and fire history datasets to forecast wildfire risk based on vegetation, temperature, and past fire patterns.
- Integrated Google Maps API and geospatial visualization to allow users to check and track wildfire-prone zones interactively.
- **GitHub:** https://https://github.com/ECOSENTRYAI/Eco-Sentry

Technical Skills

Programming Languages: Python, Java, C++, SQL
Data Engineering: Apache Airflow, ETL Pipelines, Data Modeling, Data Warehousing Concepts, Parquet, Batch Processing,delta lake
Databases: PostgreSQL, SQL Optimization, Schema Design
Machine Learning: Scikit-Learn, PyTorch, Model Training, Feature Engineering, Supervised Learning
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Exploratory Data Analysis (EDA)
Cloud & Tools: Azure, Docker, Git, GitHub, Jupyter Notebook