Ashutosh Singh Rawat

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LinkedIn | GitHub

EDUCATION

Vellore Institute of Technology   Aug 2022 – May 2026
Bachelor of Technology
     Major in Computer Science and Engineering
     Cumulative GPA: 8.79

TECHNOLOGIES AND TOOLS

- **Languages:** Python, R, Java, JavaScript (ES6+), SQL.
- **Data Engineering & Cloud:** AWS Lambda, Amazon S3, Apache Kafka, ETL Pipelines, Data Modeling & Quality.
- **Data Analysis & Visualization:** Power BI, Pandas, NumPy, Matplotlib, Seaborn, Plotly, EDA, Feature Engineering.
- **Databases**: PostgreSQL, MySQL, MongoDB, AWS Redshift / RDS.
- **Machine Learning:** Scikit-learn, TensorFlow, PyTorch, Keras, Neural Networkd, Computer Vision.
- **Tools & Version Control:** VS Code, Git, GitHub, Microsoft Office (Excel, Word, PowerPoint).
- **Relevant Coursework:** Data Structure and Analysis of Algorithm, Operating Systems, Computer Networks, Database Management, Machine Learning.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner,** AWS

WORK EXPERIENCE

AI/ML Intern   Nov 2024- Feb 2025
Huwats India Pvt. Ltd – Bengaluru (Remote)

- Designed an interactive computer vision interface for click-based object dimensioning, achieving over 90% spatial accuracy.
- Applied advanced image processing (contour detection, segmentation, thresholding) to enhance edge precision by 25%.
- Collaborated with the AI team to optimize algorithms for scale, reducing processing overhead by 20% and improving responsiveness.

PROJECTS

CUSTOMER 360 CHURN LAKEHOUSE   GitHub Repo
Unified Lakehouse for Predictive Churn Analytics

- Architected a Medallion Lakehouse (Bronze/Silver/Gold) on Azure Databricks to process 500,000+ transactions, implementing complex data cleaning and preprocessing stages for large-scale analysis.
- Engineered RFM (Recency, Frequency, Monetary) features and trained a Spark ML model to predict high-value customer churn with 95% accuracy, uncovering critical trends and patterns within the data.
- Developed an interactive Power BI dashboard connected to Gold-layer data, providing segmented business insights and actionable recommendations to reduce customer attrition.
- **Tech Stack**: Python, PySpark, Delta Lake, Spark SQL, Power BI, Azure Databricks

SUPPLY CHAIN CONTROL TOWER   GitHub Repo
Predictive Inventory & Async Business Analytics Platform

- Developed an automated forecasting engine utilizing Scikit-Learn to train regression models on historical sales logs, achieving 7-day future demand predictions and dynamic vendor scoring.
- Utilized SQL and Python to extract and transform complex datasets, conducting advanced data aggregation to visualize stock health and support real-time inventory decision-making.
- Engineered a scalable analytics dashboard that translates complex ML tasks into actionable insights, utilizing a responsive UI to present business-critical trends to logistics managers.
- **Tech Stack**: Python, Django, Redis, Scikit-Learn, PostgreSQL.

NEXUS - FINANCIAL FRAUD DETECTION PLATFORM   GitHub Repo
Real-Time Risk Intelligence & Anomaly Detection System

- Developed a predictive Statistical Modeling solution for financial risk, utilizing Python and Machine Learning (Isolation Forest) to uncover hidden patterns and anomalies in large-scale transaction datasets, directly supporting decision-making.
- Implemented a robust Data Extraction and Manipulation pipeline using SQL and Pandas, performing rigorous data cleaning, aggregation, and preprocessing to transform raw, high-velocity logs into structured insights.
- Established Data Quality Assurance protocols within the ingestion engine, ensuring schema validation and data integrity across the pipeline to maintain accuracy for downstream analysis.
- **Tech Stack:** Python (Pandas, Scikit-Learn), SQL (PostgreSQL), Streamlit, Plotly, Fast API, ETL Pipelines, REST APIs.

CO-CURRICULARS

- Co-founder, Pahadi Club: Co-founded and scaled a cultural club, organizing 5+ events for 300+ participants that boosted cross-cultural engagement.
- National Service Scheme (NSS): Executed a large-scale sustainability drive to plant 10,000+ trees and raise environmental awareness for 500+ students.