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: 8.77

TECHNOLOGIES AND TOOLS

- **Languages:** Java.
- **Scripting Languages:** Python.
- **Data Analysis And Visualization:** EDA, Feature Engineering, Power BI.
- **Machine Learning:** Deep learning, Neural Networking, Generative AI tools (ChatGPT, Gemini, Claude), LLM, Computer Vision.
- **Database & Auth**: SQL, MongoDB, Firebase Authentication.
- **Version Control:** VScode, Git, GitHub.
- **Frameworks and Libraries:** Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch, Keras, OpenCV.
- **Relevant Coursework:** Data Structure and Analysis of Algorithm, Operating Systems, Computer Netwoks, Database Management.

CERTIFICATIONS

- **AWS Academy Cloud formation**, AWS
- **AWS Academy Solution Architect**, AWS
- **IBM AI Engineer,** IBM

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

HEALTH++   GitHub Repo
Smart Health Management Platform
- Built a secure patient portal using Firebase Authentication and Google Drive API, enabling HIPAA-compliant storage and sharing of medical prescriptions.
- Built a user-friendly directory of 100+ healthcare providers utilizing MongoDB and Google Maps API, enhancing patient accessibility and facilitating seamless navigation to nearby medical facilities.
- Deployed an AI-powered support system using Google Gemini, automating patient query resolution and improving platform engagement.
- **Tech Stack**: HTML/CSS/JS, JavaScript, Node.js (Backend), MongoDB, Firebase Auth, Google Gemini API, Google Drive API, Google Maps API.

CUSTOMER 360 CHURN LAKEHOUSE   GitHub Repo
Unified Lakehouse for Churn Analytics
- Architected a Medallion Lakehouse (Bronze/Silver/Gold) on Azure Databricks to process 500,000+ transactions.
- Engineered RFM features and trained a Spark ML Logistic Regression model to predict high-value customers with 95% accuracy.
- Spearheaded the development of an interactive Power BI dashboard, connected to the Gold layer data, providing insights on 5 distinct customer segments and trends critical to business decisions.
- **Tech Stack**: Python, PySpark, Delta Lake, Spark SQL, DAX, Power BI.

REAL TIME DATA PIPELINE   GitHub Repo
Real-Time Data Analytics & Anomaly Detection Pipeline
- Engineered a fault-tolerant pipeline using Apache Kafka, capable of ingesting and processing 10,000+ events per second with sub-second latency.
- Leveraged Elasticsearch machine learning to perform unsupervised anomaly detection on live streams, identifying critical system outliers with 90% precision in real-time.
- Containerized the entire ELK Stack (Elasticsearch, Logstash, Kibana) using Docker, reducing environment setup time by 75% and ensuring consistent deployment across OS platforms.
- **Tech Stack:** Python, Apache Kafka, Elastic Stack (Elasticsearch, Kibana, Logstash), Elastic Machine Learning, Docker, Docker Compose.

CO-CURRICULARS

- Co-founder, Pahadi Club: Co-founded and scaled a cultural club, organizing 5+ events for 300+ participants that boosted cross-cultural engagement by 40%.
- National Service Scheme (NSS): Executed a large-scale sustainability drive to plant 10,000+ trees and raise environmental awareness for 500+ students.