

Velagala Pallavi Rani

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Skills

- Programming Languages: Python, SQL
- **Data Engineering Tools:** Pandas, NumPy, Scikit-Learn, AWS Glue
- **Cloud Technologies:** AWS (S3, Lambda, SageMaker, Athena, EC2, API Gateway)
- **Data Orchestration:** Experience with designing and implementing automated data pipelines.
- **Data Visualization:** Tableau, Matplotlib, Seaborn
- **Other:** Excel, Flask, Streamlit, ngrok

Projects

Crime Data Analysis & Visualization

- **Automated Data Pipeline:** Designed and implemented a robust ETL pipeline using AWS Glue to extract, transform, and load 40,162 crime records from diverse sources into AWS S3, ensuring seamless data ingestion and consistent data quality.
- **SQL-Based Data Transformation:** Leveraged AWS Athena for efficient SQL-based data transformation and querying, optimizing crime trend analysis and reducing manual query execution time by 30% through optimized storage formats.
- **Interactive Crime Insights Dashboard:** Developed an interactive Tableau dashboard to visualize crime patterns, enabling law enforcement agencies to make data-driven decisions and allocate resources effectively.
- **Tech Stack:** AWS S3, AWS Athena, AWS Glue, Tableau
- **GitHub Repo:** <https://github.com/pallavirani123/crime-insights-dashboard>

Job Recommendation System (ML & Web-Based)

- **Data-Driven Job Matching:** Built an ML-based job recommendation system using TF-IDF & Cosine Similarity to match job seekers with relevant opportunities.
- **API and Web Interface:** Developed a Flask API to serve job recommendations and an interactive Streamlit web app for a user-friendly.
- **Deployment and Accessibility:** Deployed the model using ngrok for public access, showcasing the ability to make data-driven recommendations accessible to a wider audience.
- **Tech Stack:** Python, Pandas, Scikit-Learn, Flask, Streamlit, TF-IDF, Cosine Similarity, ngrok
- **GitHub:** <https://github.com/pallavirani123/job-recommendation-system>

AI-Powered Resume Parser & Job Matcher (Ongoing)

Designing a web-based tool to parse resumes and match them with job descriptions using NLP and ML.

- Currently building modules to extract key resume data (skills, experience, education) using Python, spaCy, and regex.
- Implementing semantic job-resume matching using BERT embeddings and cosine similarity for accurate candidate-job alignment.
- Developing features for resume optimization feedback and personalized job recommendations for job seekers.
- Enabling bulk resume screening and automated candidate ranking for recruiters and HR teams.
- Stack: Python, FastAPI, spaCy, Transformers (BERT), Scikit-learn, React, MongoDB/PostgreSQL

Experience

Cloud Computing Intern | ExcelR – Andhra Pradesh, India

June 2024 - July 2024

- Focused on optimizing cloud resources for scalability, reliability, and cost-efficiency while supporting troubleshooting efforts.
- Worked with AWS SageMaker for model training and deployment, contributing to machine learning workflows in the cloud.

Data Analysis Intern | Teach nook – Andhra Pradesh, India

April 2023 - May 2023

- Conducted Exploratory Data Analysis (EDA) on datasets to identify trends, patterns, and anomalies using Python and libraries like Pandas, NumPy, and Matplotlib.
- Cleaned and preprocessed raw data, handling missing values, outliers, and inconsistencies to ensure high-quality datasets for analysis.
- Created visualizations using Matplotlib, Seaborn, and Tableau to communicate insights effectively to stakeholders.
- Delivered actionable insights by interpreting data findings to support data-driven decisionmaking.

Education

Gayatri Vidya Parishad College of Engineering for Women (Affiliated to AU)

April 2022 – May 2026

- **B. Tech in Computer Science Engineering**
- CGPA: 8.72 (until 5th semester)
- **Coursework:** Data Structures and Algorithms, Operating System, DBMS, Computer Network, Software Engineering.

Aditya Junior College

June 2020 – March 2022

- **APBIE, MPC** stream
- **12th Score:** 90.3 percentage (903/1000)

Sri Chaitanya School

May 2020

- **SSC** stream
- **10th Score:** 83 percentage (415/500)