Hemanth kumar Sharab

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github.com/hemanthsharab

Education

University of Central Missouri, *Master's in Computer Science;* GPA: 4.0/4.0 — Jan 2024 - Dec 2025
Vel Tech University, *Bachelor's in Computer Science;* GPA: 4.0/4.0 — Jun 2018 - May 2022

Experience

Software Engineer - Data Engineer, Harman India — Mar 2023 – Dec 2023

- Developed scalable **ETL pipelines with Apache Airflow**, integrating 25+ data sources and reducing data lag from **10** to **2.5** minutes.
- Designed a **PostgreSQL data warehouse** for **5** factories, optimizing storage and retrieval of **1M+** data points for faster access.
- Conducted data migration testing, reducing processing time by **70%** and improving pipeline reliability.
- Automated hourly report delivery for **1000+** team members using Python scripts deployed on **Kubernetes**.
- Built an API-driven UI to track recurring quality defects, improving defect resolution and product quality across **6** lines.
- Collaborated with teams to enable real-time visualization of **shop-level metrics**, enhancing decision-making processes.

Associate Engineer - Data Engineer, Harman India — Oct 2021 – Feb 2023

- Created interactive visual analytics dashboards in Tableau, improving production line efficiency to **85%** and aiding in actionable decision-making.
- Computed an Impact Score using recurring indices, which identified key factors affecting the ability to meet shop-level targets.
- Leveraged **NLTK and SpaCy** to develop a text automation model for summarizing comments extracted from **15,000** unstructured data points, enhancing insight extraction efficiency.
- Processed yearly raw data from 12+ diverse sources spanning 4 factories and reduced 1800 features to lower dimensions using **PCA techniques**, improving model performance.

Technical Skills

Programming: Python (NumPy, Pandas, Matplotlib, Scikit-learn, SciPy, Seaborn), SQL, C++, JavaScript, HTML/CSS
Data Science: Data Analysis, Modeling, Machine Learning, Deep Learning, Generative AI, MLOps
Databases: MySQL, MS SQL Server, MongoDB, AWS Redshift, Snowflake, Hadoop, Spark, BigQuery
ETL & Visualization: Airflow, AWS Glue, Tableau, Power BI, Quicksight, Grafana
Cloud & DevOps: AWS, Azure, Docker, Kubernetes, Databricks, Git/GitHub, TensorBoard
Tools: Jira, Agile, Scrum, MS Office Suite

Projects

Personalized Music Therapy | Python, TensorFlow, Keras, Librosa, Pandas, Flask

- Designed a deep learning-powered recommendation engine to curate personalized music therapy playlists based on user emotional states, increasing user satisfaction by 35%.
- Implemented audio feature extraction using Librosa and refined the model with TensorFlow and Keras, achieving a 20% improvement in mood prediction accuracy.

Sales Forecasting Dashboard | Python, Tableau, Scikit-learn, NumPy, Pandas, ARIMA, Time Series Analysis

- Engineered an interactive dashboard to forecast sales trends, leveraging ARIMA and Scikit-learn, achieving a 95% forecasting accuracy.
- Enhanced decision-making capabilities by reducing RMSE by 25% through advanced feature engineering and model optimization.

Video-to-Anime Project | Python, OpenCV, PyQt5, TensorFlow, GANs

- Spearheaded a GAN-based video-to-anime conversion tool, transforming live-action footage into anime-style visuals with a 90% quality rating.

Certifications

IBM Data Science Specialization - 12 Courses

Achievements

- I was honored with the prestigious "**Take a Bow**" award in recognition of my exceptional innovation, including developing advanced automation tools, streamlining processes, and delivering impactful solutions that significantly enhanced operational efficiency and team performance.
- I received a prize in a **hackathon competition** during my **bachelor's**, awarded by our university **founders**, Dr. Sagunthala and Mr. Rangarajan.