YOGALAKSHMI SARAVANAN

4076168171 | yogasaravanan1000@gmail.com | Linkedin | Github

SUMMARY

Data-driven graduate with a Master's in Computer Science and hands-on experience in solving complex data challenges. Expert in uncovering patterns, optimizing data processes, and driving impactful insights with Python, SQL, and Machine Learning.

RELEVANT WORK EXPERIENCE

LIGHTPATH TECHNOLOGIES - *Computer Vision Software intern*   *August 2024 - Present*
- ▸ Researched and developed an object detection model for **thermal images** from **FLIR dataset** achieving accuracy of **above 70%** using **customized YOLOv8** model deployed using a **hailo ai accelerator.**
- ▸ Independently crafted Power BI dashboards integrating multiple **20,000+ Excel entry tables** with effective **star schema** modeling, delivering **high-impact visualizations** for senior management.
- ▸ Built REST APIs to communicate with CVEDIA thermal detection modules using python scripts and c++. Worked on the integration of the CVEDIA software with maris jupiter hardware board.

GENPACT INDIA - *Data scientist (co-op)*   *February 2022-August 2022*
- ▸ Implemented and optimized **StyleNerf model (**under Facebook Research) to create an automated 3D damage detection system for automobiles using **generative models.**
- ▸ Created and configured data buckets for image data storage, using **Amazon Web Services S3**(AWS), slashing data retrieval times from 20s to 7s, reducing it by **64%**
- ▸ Coded the preprocessing, cleaning and data ingestion automation of real time datasets of over **16,000 images.** Constructed data transformation pipelines for image augmentation using **Databricks jobs** and **Pyspark**, reducing the processing time for over **2TB** data in **half**.
- ▸ Fine tuned **5 customized models** using databricks **MLflow**, directly responsible for a **54%** increase in performance accuracy.

ZIGZAG ART PRINTERS - *Database developer (contract)*   *July 2021 - December 2021*
- ▸ Engineered **relational databases** using **Microsoft SQL Server**, increasing data processing throughput to handle an additional **50,000** records daily.
- ▸ Automated job scheduling using **python** scripts,**excel** (vlookup,pivot tables) and **SQL** and reducing idle time from 40 hours to 25 hours per week, achieving a **37.5%** reduction.
- ▸ Applied **clustering** to unlabelled customer data for **segmentation** by order volume and frequency, crafting a personalized service package strategy with a **20%** increase in customer satisfaction scores.
- ▸ Developed real-time **inventory management** PowerBI dashboards , optimizing stock and material usage for over **10,000 products**

AMPHENOL INTERCONNECT - *Data science intern*   *March 2020 - June 2020*
- ▸ Spearheaded pressure and gas **sensor data analysis** using **Seaborn and Matplotlib**, enabling **2 key** predictive maintenance strategies that were employed long term.
- ▸ Assisted in crafting time series **ARIMA** models to gauge trends and seasonality for **7 unique** product sales datasets achieving highest accuracy of 88%
- ▸ Conducted **data wrangling** tasks using **Python and Pandas** to clean, transform, and organize sensor data for analysis,processing approximately **10000** data points daily.

SKILLS & INTERESTS
- ▸ **Programming languages :** Python, C/c++ , Javascript, Java
- ▸ **Specializations :** Machine learning,Computer vision, Data visualization and reporting, Data Analysis, Natural Language Processing, Statistical Analysis

PERSONAL PROJECTS AND OTHERS
News headline generator - *github repo*
- ▸ Engineered an abstractive text generator for **CNN** news article dataset over 1gb in size. headlines using 3 different **LSTM** models with a custom **attention layer**, with a **41%** improvement in **ROUGE** and **BLEU** scores**.**

Yelp restaurant recommender system - *github repo*
- ▸ Constructed a **KNN**-based **collaborative recommendation** system integrated with a **sentiment analysis** module with **94.8%** positive predictions.

EDUCATION
University of Central Florida | Orlando, FL
Master of Science in Computer Science (Fall 22) (GPA: 3.79/4.0)   *2022- 2024*
Coimbatore Institute of Technology | India
Bachelor's in Engineering in Computer Science and Engineering   *2018-2022*

RELEVANT UNIVERSITY COURSEWORK
Machine learning| Natural language processing | Computer vision | Advanced Artificial Intelligence | Design and Analysis of Algorithms | Advanced Computer Architecture | Database Management | Web Development