# JAYANTH DASAMANTHARAO

#### **EDUCATION**

Rutgers University, Masters in Data Science, GPA:3.5/4

May 2024 | New Brunswick, NJ

Relevant Coursework: Statistics: Statistical Modeling & Computing, Stat Learning; Neural Networks, Machine Learning, Data Structures & Algorithms(Python), Data Wrangling (R), NLP, Data Mining. Projects Overview: Portfolio.

Andhra University,

2017 - 2021 | Visakhapatnam, India

Bachelor of Technology in Electrical & Electronics Engineering

Research Paper: Self Driving Cars Using Image Processing and Deep Learning.

## TECHNICAL SKILLS

**Programming:** Python(problem-solving), R, Scala, Linux **Quantitative Analysis:** ggplot(R), Tableau, Statistical Modeling, Causal Inference Probability and Inference, Hypothesis testing, Bayesian Statistics, Predictive Modelling, SAS.

Deep Learning(DL): Convolutional & Deep Neural Networks, NLP, LLM's, Computer Vision, AI, BERT, Pytorch.

Machine Learning (ML): Regression, Time Series methods, Ensemble Methods, Gradient Boosting trees, MLOps.

Data Engineering: SQL, Data Warehousing, Spark, Hadoop, AWS(Athena,Redshift,Lambda,S3), GCP(BigQuery, Cloud Storage, Dataproc), Snowflake, Airflow. Data Analytics: PowerBI, Tableau, Shiny, Matplotlib, Seaborn, Data Wrangling.

Data Architecture: Database Design, Data - Modeling, Integration, Governance Warehousing; Normalization, ETL.

#### PROFESSIONAL EXPERIENCE

Data Science Intern, Harvest Software Solutions, LLC

June 2023 - Sept 2023 | Jacksonville, Florida

Real-time Ad Campaign Optimization:

- Real-time Data Extraction using API's: Extracted data from Aniview and CMCBeacons via APIs. Managed 5M+rows, performed EDA, and incorporated CPM for critical performance evaluation.
- Data Analysis: Utilized visualization, summary stats, and hypothesis testing for insights into ad campaign performance.
- Predictive Modeling: Developed XGBoost for predictive modeling achieving low MSE. Applied 5-fold cross-validation to prevent overfitting. Utilized H2O's AutoML for automated model selection,
- Automation and Techniques: Used AutoML for automated tasks, like feature engineering and hyperparameter tuning, selecting the optimal model for CPM prediction. Evaluated software applications to enhance automation processes.

Application Development Associate, Accenture Solutions Pvt Ltd June 2021
Database Analyst, Regeneron Inc - Client Data Analysis & Warehousing

June 2021 - Aug 2022 | Hyderabad, India

- Data Analysis: Utilized Athena and Redshift for client data analysis, identifying two-thirds of integrity exceptions and improving process efficiencies. Implemented ETL for efficient data handling, reducing support calls by 50%
- Designed Python pandas data pipelines to automate scripts, resulting in a 50% reduction in support calls and ensuring efficient storage and maintenance of customer campaigns.
- Proficiently used **JIRA** to manage Agile development projects, creating, prioritizing, and updating tickets for seamless cross-functional collaboration.
- Data Warehousing: Conducted business analysis for customer data warehousing, resulting in improved data warehousing, enhanced data accuracy, and a significant reduction in data processing duration.
- Formulated **SQL queries using SQL Workbench** to meet business needs, thereby enhancing data quality and precision. Executed technological solutions, including DDL updates and the **deployment of data into production servers**.

### RESEARCH PROJECTS

# [Probabilistic Graphical Models, Bayesian Networks, PyMC3, Informative Prior Distributions]

Developed Bayesian logistic regression models using PyMC3 to predict diabetes status, incorporating informative priors. Evaluated performance with recall and f1-score metrics, comparing outcomes between uniform and normal distribution priors. Bayesian Classification on Diabetes data.

[Hugging Face transformers, Naive Bayes, Logistic Regression, BERT, N-Grams, GloVe embeddings] Led Language Identification employing Naive Bayes, Logistic Regression, and DistilBERT, achieving an 89% baseline accuracy globally. Leveraged DistilBERT, enhancing precision to 94%, and incorporated n-grams analysis for a more nuanced understanding of linguistic patterns. *Language Identification*.

# [PostgreSQL, MongoDB, Python, Sorting techniques, Search Engine Optimization, Django]

Created a user query-responsive tweet retrieval system by integrating dual databases: Postgres for user data management and MongoDB for tweet storage. Optimized data storage and retrieval efficiency by 35% while implementing advanced caching strategies for superior system performance. Twitter Search Application.