



HEMANTH KUMAR REDDY TIYYAGURA

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EDUCATION

George Mason University-Fairfax, Virginia

Master of Science in Computer Science(ML Concentration)

Jan 2022 - Dec 2023

GPA : 3.63

SASTRA University-Thanjavur, India

Bachelor of Technology in Computer Science

Jul 2016 - May 2020

GPA : 3.78

TECHNICAL SKILLS

Languages & IDE : Python, SQL, HTML, CSS, C, Java, VBA, Google Colab, Spyder, Pycharm, JupyterLab,DART,Visual Studio Code,SAS,R

Cloud & Big Data : Microsoft Azure (Databricks, ADF, Data Lakes, Azure Blob Storage, ADLS Gen2,Azure Synapse),AWS(EC2,S3,Redshift,Glue,EMR,Lambda,API Gateway,Dynamo DB),GCP,Snowflake, Hadoop, HDFS, Apache Spark, Apache Airflow, PySpark, Spark SQL, Map Reduce, Apache Kafka,NoSQL(Database)

Tools : Tableau ,Power BI, ArcGIS, Alteryx, Docker, Kubernetes, Informatica, IICS, Microsoft Excel,Powerpoint,SAP,Sharepoint,Google Sheets

Frameworks : Django,Streamlit,Flask,Keras,Pytorch,Tensorflow,NLTK,GenAI(Vector DB, LlamaIndex, LangChain,Vertex AI),Angular, PostgreSQL, SQL Server

Miscellaneous : Spacy, Scikit Learn,Time Series, Numpy, Pandas,Statistics (A/B Testing, Probability) ,Statistical Analysis,Parquet,Jira,SSIS,Devops,Big Query

EXPERIENCE

Cognizant Technology Solutions

Chennai, India

Programmer Analyst

(Aug 2020 – Nov 2021)

- I spearheaded a transformative project that harnessed a suite of AWS services to build a robust and scalable **RESTAPI** for retrieving vehicles sales data and ensured seamless integration of AWS components for secure, reliable, and efficient retrieval of sales data.
- Designed and implemented end-to-end **ETL pipelines** to extract, transform, and load sales data from diverse sources using **Informatica** tool.
- Implemented **CloudFormation templates** to automate data processing workflows, resulting in a 10% improvement in productivity.
- Integrated AWS services including **API Gateway, CloudFormation, Lambda**, and **RDS** for efficient customer data retrieval, **IAM** for user access control.
- Leveraged **SQL** expertise to investigate and diagnose data discrepancies, anomalies, and performance bottlenecks within the **Tableau** data sources.
- Utilized **Amazon EMR (Elastic MapReduce)** for distributed data processing, employing **PySpark** and **Python** to perform complex transformations and aggregations on large customers sales dataset and developed an interactive sales performance dashboard using **seaborn,plotly,matplotlib**

Novartis

Hyderabad, India

Data Engineer

(Jul 2019 - Jul 2020)

- Led the design and implementation of end-to-end data pipelines leveraging **Azure Data Factory, Azure Databricks**, and **Azure Synapse Analytics** to streamline the ingestion, processing, and transformation of diverse pharmaceutical datasets.
- Designed and developed interactive dashboards and visualizations in **Tableau** and **Power BI** to uncover trends and patterns in pharmaceutical sales, production, and clinical trial data. Utilized **line charts, bar graphs, and heatmaps** to visualize sales data and identify actionable insights for sales team
- Implemented performance optimizations within **Azure Databricks**, resulting in 30% increase in data processing speed for critical analytics workflows.
- Developed and trained **Machine Learning** models using Python libraries such as **scikit-learn** and **pytorch** to analyze pharmaceutical data and extract actionable insights. Implemented techniques such as **data normalization, feature scaling**, and handling missing values to ensure data quality
- Implemented **data governance policies** and **security measures** to protect sensitive pharmaceutical data and ensure compliance with regulatory requirements. Established clear guidelines and procedures for data collection, storage, access and disposal to ensure accountability and transparency.

Tech Vedika INC

Hyderabad, India

Data Analyst

(Nov 2018 - Jun 2019)

- Designed and created interactive **Tableau dashboards** to visualize Employee Attrition data trends, enabling Employers to make data-driven decisions.
- Utilized **SQL queries** to extract and transform **Employee Attrition data** from relational databases, ensuring data accuracy and completeness.
- Conducted extensive **Data Preprocessing** and **Feature Engineering** to extract relevant features from large-scale transactional datasets, enhancing the performance of the fraud detection models.
- Utilized advanced analytics techniques, including **Machine Learning** algorithms such as **Logistic regression, Random Forests**, and **Neural Networks**, to detect anomalous patterns indicative of fraudulent activity.

PROJECTS AND PUBLICATIONS

Safe URL Inspector | (Python, Machine Learning, Selenium, SSL, Node JS ,Telegram Bot, Tableau)

(Sep 2023 - Nov 2023)

- Developed a comprehensive website and mobile app utilizing regular expressions to extract URLs from text messages and emails, Selenium for conversion of short-form URLs to their long-form equivalents
- Utilized a Random Forest classifier, incorporating features such as page rank, the number of question marks, and semicolons in URLs, to classify URLs as genuine or fake.

Facial Emotion Recognition using Haar Cascade and CNN | (Python, CNN, Scikit, Pytorch, Computer Vision)

(Jan 2021 - Jul 2021)

- Published a research project in Springer, presenting a comprehensive facial recognition system that integrated Haar Cascade for facial detection, data augmentation to enhance dataset diversity, and CNN for emotion classification. **IEEE Publication Link:** [\(Tap\)](#) ⚡
- The proposed model detects human face in image or video and Emotion Classification is performed with 80% accuracy achieved through CNN.

ACHIEVEMENTS AND CERTIFICATIONS

- Achieved recognition in Blue Clarity “Bring Down Counterfeiting-2023” hackathon, winning the prestigious **Best Overall Solution Student Prize** and earning the **Crowd Source Prize** [\(Tap\)](#) ⚡
- Microsoft Certified: **Power BI Data Analyst Associate** [\(Tap\)](#) ⚡
- Microsoft Certified: **Azure Data Engineer Associate** [\(Tap\)](#) ⚡