VIJAYRAM CHAUHARYAPRASAD PATEL

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EDUCATION

University of Wisconsin - Madison: Masters in Information | GPA : 4.0/4.0　　　　　　　　Sep 2023 - May 2025
- Relevant Coursework: Database Design, Data Visualization, Deep Learning, Information Processing and Retrieval

KJ Somaiya College of Engineering: Bachelors of Technology in Electronics Engineering　　　　Aug 2018 - May 2022
- Relevant Coursework: Python Programming, Applied Machine Learning, Data Structures and Algorithms

WORK EXPERIENCE

University of Wisconsin - Madison | Project Assistant　　　　　　　　　　　　　　　　Jan 2024 - Present
- Consolidated and cleaned 27 years of dermatology patient data from disparate Excel files, enhancing **data analysis** efficiency to assess key performance indicators, healthcare patient trends, and allergy growth rates.
- Derived **KPIs**, providing valuable insights into healthcare worker and non-healthcare worker data.
- Identified and analyzed the relevance of 80 allergens, uncovering important **trends and patterns** in the dermatology patient data.

Datacurate Technologies | Associate Consultant　　　　　　　　　　　　　　　　　　Jun 2022 - Jul 2023
- Developed and unit-tested **3 ETL solutions** for batch data processing into SAS DDS using SQL and SAS Data Integration Studio.
- Spearheaded the management of handling backend data, including SQL data editing, resulting in a decrease in data processing time, saving **10 hours per week**.
- Optimized the 'Kotak Life Insurance' project, streamlining and automating routine tasks, which resulted in a **78% reduction in manual errors** and improved efficiency, ensuring smooth dashboard reloading.
- Designed SAS Viya dashboards and reports, facilitating **data-driven decisions** and a 15% increase in policy retention.

Cloud Counselage | Data Engineer Intern　　　　　　　　　　　　　　　　　　　　Dec 2021 - Feb 2022
- Constructed and optimized ETL data pipelines using **Snowflake** and **AWS**, decreasing resource consumption on AWS by **12%**
- Leveraged **Tableau** for data visualization to uncover significant correlations, leading to the formulation of targeted marketing strategies that contributed to an impressive **8%** boost in overall sales performance.

PROJECT EXPERIENCE

Data Engineering - Redfin Housing Data Pipeline and Visualization　　　　　　　　　　　　　　2024
- Implemented an ETL pipeline with AWS services, Snowflake, and Airflow for housing market data processing.
- Transformed and processed **39 million records** by cleaning, type conversion, and extracting features like month and year, optimizing the dataset for effective analysis and visualization.
- Developed interactive Tableau dashboard to provide valuable insights into property prices for the **past 10 years**.

Data Engineering - ETL and Data Visualization　　　　　　　　　　　　　　　　　　　　　2024
- Led analysis on layoffs using Python to clean, process, and manipulate the dataset, achieving **15%** increase in data quality.
- Streamlined **ETL** processes for seamless data transfer between AWS cloud and local environment, extracting key insights that guided actionable recommendations for reducing attrition rates.
- Designed and developed **interactive dashboards** using **Tableau** providing a holistic view of workforce dynamics, along with a detailed breakdown of layoffs at various stages to facilitate targeted analysis.

Real Time Analytics - Kafka Data Pipeline with Streamlined Processing　　　　　　　　　　　　2023
- Developed and implemented a real-time data pipeline using **Kafka** and **Docker**, ingesting streaming data, processing it in real-time, and storing it in a new Kafka topic.
- Implemented data filtering, aggregation, and transformation within the Kafka consumer, optimizing processing efficiency.
- Revealed user **engagement insights** by analysis of app version, usage frequency and device ID distribution.

Data Science and Machine Learning - Fraud Transaction Detection　　　　　　　　　　　　　　2023
- Executed a comprehensive data exploration strategy on a **700,000-row** dataset to train and validate **Logistic Regression, Decision Trees, and Gradient Boost** models on the preprocessed data to develop a fraudulent transaction detection ML model.
- Enforced **hyperparameter** tuning in model development, resulting in a **15%** increase in model accuracy and **10%** boost in F1 Score
- Developed a streamlined process for hyperparameter optimization using **grid search** and **Bayesian optimization algorithms**, reducing the time required for fine-tuning model configurations by **30%**, while achieving higher performance metrics

SKILLS

- **Technical Skills:** Python, Spark, SQL, Javascript, C
- **Cloud and Databases:** AWS (S3, RDS, DynamoDB, Lambda), GCP, Databricks, Snowflake, SAS (EG, DI, VIYA)
- **Tools and Frameworks:** Tableau, TensorFlow, Git, PowerBI, PyTorch, Keras, Docker, PL/SQL
- **Expertise Areas:** ML, Exploratory Data Analysis, SQL, Python (NumPy, Pandas, Scikit-learn), Tableau, AWS

LEADERSHIP AND VOLUNTEER EXPERIENCE

- Volunteered at a national NGO - U&I for teaching Math to underprivileged children, while also being involved 2020 in their fund-raising efforts, **raising a net sum of Rs. 7,00,000 or $8,405**.　　　　　　　2020
- Led my team in KJSCE – Hackathon securing **1st position** out of 84 participant teams.　　　　　　2019