CHAITANYA KRISHNA KOMMINENI

📞 9381816163 — ✉️ komminenichaitanyakrishna2002@gmail.com — 🔗 kchaitanya17 — 🌐 ckommineni

Education

University at Buffalo, The State University of New York   **Buffalo, NY**
Masters of Science in Data Science   *Aug 2024-Jan 2025*

K L E F Deemed To Be University   **India**
Bachelor of Technology   *Jun. 2019 - May. 2023*

Technical Skills

Programming: Python, R, SQL, SAS, Shell Scripting, C++
Machine Learning & Data Science: Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Predictive Modeling, Regression Analysis, NLP, Ensemble Methods, Transformers
Data Visualization: Tableau (Certified), Power BI, Matplotlib, Seaborn
Databases: PostgreSQL, MySQL, Microsoft SQL Server, Google BigQuery, Snowflake
Cloud Platforms: Microsoft Azure (Certified), Google Cloud (BigQuery), AWS (Basics)
ETL & Data Engineering: Apache Airflow, SQL Pipelines, Data Cleaning, Data Wrangling
Development Tools: Jupyter Notebook, Anaconda, VS Code, Git, Streamlit, Google Colab
AI & Deep Learning: TensorFlow, PyTorch, CNNs, Vision Transformers, Image Captioning
Business Intelligence: Dashboards, KPIs, DAX (Power BI), Data Storytelling
Excel & Reporting: Excel (Pivot Tables, VLOOKUP, Charts), Report Automation
Data Governance & Testing: Data Quality Checks, UAT, Data Validation
Mathematics & Statistics: Hypothesis Testing, Probability, Linear Algebra, Statistics, Time Series
Version Control: Git (GitHub)

Projects

Image Captioning with CNN & Transformers   *Spring 2025*

- Developed an end-to-end **image captioning model** using **ResNet50 for feature extraction** and a **Transformer-based decoder** for caption generation.
- Trained the model on the **Flickr8k dataset**, performing data preprocessing, tokenization, and sequence modeling.
- Deployed the model via a **Streamlit application**, enabling users to upload images and receive AI-generated captions in real-time.

CRM Data Analysis & Visualization   *Spring 2025*

- Designed and executed **SQL queries** to create a structured CRM dataset, integrating **user engagement, campaign performance, and channel effectiveness**.
- Conducted **data analysis in Excel** using **Pivot Tables, Charts, and Conditional Formatting** to visualize engagement trends.
- Developed a **data storytelling report** summarizing insights and proposing **CRM strategy optimizations** for improved **customer engagement and conversions**.

Financial Risk Analysis Dashboard   *Fall 2024*

- Developed a **Power BI dashboard** integrated with **SQL databases and BigQuery** to analyze financial metrics, including **credit risk exposure, profit margins, and liquidity**.
- Implemented **risk models and automated workflows** using **Apache Airflow**, improving **data filtering efficiency by 30%**.
- Enhanced **data storytelling** techniques, simplifying insights for non-technical stakeholders and influencing key business decisions.

AML Risk Model Validation   *Spring 2024*

- Validated **Anti-Money Laundering (AML) scoring models** using **Python, SAS, and Spark**, ensuring **95% model accuracy and scalability**.
- Collaborated with **cross-functional teams** to refine model validation frameworks and drafted **technical documentation** for audit compliance.
- Aligned **validation outcomes with data governance standards**, enhancing model **consistency and regulatory reliability**.

Formula 1 Data Analysis and Performance Dashboard *Summer 2024*

– Developed an **interactive Tableau dashboard** using **SQL and BigQuery** to analyze **Formula 1 race data** and predict performance trends.
– Adapted the project to focus on **customer behavior prediction and inventory management** in retail applications.
– Automated **real-time data processing**, reducing **manual analytics efforts by 40%** and improving business intelligence reporting.

Sales Risk Performance Dashboard *Summer 2024*

– Created a **Tableau dashboard** leveraging **SQL and CosmosDB** to evaluate **sales risks, revenue growth, and product lifecycle trends**.
– Provided insights aligned with **eCommerce operations**, improving **inventory accuracy by 20%** and customer satisfaction.
– Integrated **forecasting workflows** using **Apache Airflow**, enabling **real-time scenario planning**.

Recommendation System for Research Papers *Fall 2023*

– Built an **NLP-based recommendation system** using **Machine Learning** to personalize research paper suggestions.
– Applied **graph-based algorithms** to enhance recommendation **precision by 25%**.
– Automated **data preprocessing**, enabling **real-time product recommendations** in an **eCommerce environment**.

Cab Booking System *Oct 2019*

– Developed a **cab booking system in Java** with real-time updates for improved booking efficiency.
– Integrated **database functionality** to manage **ride tracking, historical data, and driver availability**.
– Applied **modular development principles** for seamless integration with larger **eCommerce applications**.

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Certifications

– **Tableau Desktop Specialist** – Tableau (Issued Mar 2025)

– **Microsoft Certified: Azure Fundamentals** – Microsoft (Issued Apr 2025)

– **Advanced Data Visualization with Tableau** – Tableau (Issued Apr 2025)