KIRTANKUMAR PAREKH

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SUMMARY

I am a motivated Data Science graduate student with a robust foundation in Computer Engineering and experience in Python-driven machine learning projects. Skilled in model development, evaluation, and deployment, with a focus on statistical modeling and data visualization. Demonstrated ability to work collaboratively and independently, eager to apply analytical expertise and coding skills to deliver impactful, data-driven solutions.

EDUCATION

DePaul University **Sep 2024 - Jun 2026**
Master of Science, Data Science

CVM University **Jun 2020 - Jun 2024**
Bachelor of Engineering, Computer Engineering

PROFESSIONAL EXPERIENCE

Venon Technologies **Jan 2024 - Apr 2024**
Python Developer Intern

- Designed and developed a full-stack Grocery Store Management System prototype, managing the end-to-end process from conceptual design to final implementation while emphasizing data management and integration.
- Engineered the backend using Python with the Flask framework and connected to a MySQL database, automating data handling processes and facilitating reliable information retrieval.
- Collaborated with a mentor through bi-weekly progress reviews, incorporating feedback to refine features and enhance overall system performance, demonstrating adaptability and effective team communication.

PROJECTS

RAG-Based Document QA Chatbot

- Developed a Retrieval-Augmented Generation (RAG) chatbot for conversing with PDF document.
- This application utilizes local LLMs (e.g., Llama3.2 via Ollama) for enhanced privacy and security.
- Features include PDF upload, automatic text extraction, chunking and embedding, and context-aware responses with source citations, reducing hallucinations.

FER2013 Emotion Detection CNN

- Designed and trained a custom CNN for facial emotion recognition using the messy FER2013 dataset.
- Conducted extensive data preprocessing, including data augmentation and normalization, to optimize model performance and prepare the dataset for training.
- Evaluated model performance using metrics such as confusion matrices, precision, and recall to thoroughly understand its strengths and weaknesses across different emotion classes

Job Resume Analysis & Recommender System (Group Project)

- Developed a comprehensive resume-job matching system using NLP.
- Engineered key features such as skill overlap, experience match, and education levels, and built a content-based recommendation system using TF-IDF and cosine similarity.

TECHNICAL SKILLS

- **Programming Languages**: Python, R
- **Data Analysis & Visualization**: NumPy, Pandas, Matplotlib, Seaborn, Data Visualization
- **Machine Learning & AI**: Scikit-learn, PyTorch, Machine Learning, Deep Learning Fundamentals, Natural Language Processing
- **Additional Skills**: SQL Databases, Git and GitHub, Data Science Principles, Data Structures & Algorithms, Statistics, Linear Algebra