KIRTANKUMAR PAREKH

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SUMMARY

Motivated Data Science graduate student at DePaul University with a foundational background in Computer Engineering. Specializing in machine learning model development, evaluation, and deployment. Passionate about applying skills in Python and statistical modeling to build robust, data-driven solutions and contribute to an impactful team

TECHNICAL SKILLS

- Python, R, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PyTorch, SQL Databases, Git and GitHub
- Data Science principles, Machine Learning, Deep Learning fundamentals, Data Structures & Algorithms, Natural Language Processing, Statistics, Linear Algebra.

PROFESSIONAL EXPERIENCE

Python Developer Intern, Venon Technologies **Jan 2024 - April 2024**

- Developed a functional prototype for a full-stack Grocery Store Management System, independently managing the end-to-end development process from initial design to final implementation.
- Engineered the backend using Python with the Flask framework, connecting to a MySQL database for robust data management.
- Collaborated with a mentor through bi-weekly progress reviews, integrating feedback to refine features and enhance application performance

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, and 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.

EDUCATION

Master of Science in Data Science **Sep 2024 - June 2026**
DePaul University

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

- Minor Degree in IoT