NIKUNJ SACHDEVA

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Technical Skills

Programming & Backend Python, JavaScript, Flask, SQL, REST API

Dev. Tools : VS Code, Google Cloud Console, Android Studio, Pycharm/Jupyter notebook, Generative AI, Flask/Django, AWS(EC2, ECS, API Gateway)

Frameworks & Libraries *:* Linux, TensorFlow, PyTorch, Scikit-learn, Keras, GitHub, Numpy, Pandas, REST API

Coursework : Data Structures, Artificial Intelligence, OOPs, OS, Project Management, RDBMS, TOC, Algorithms

AI & Data Science: NumPy, Pandas, LLM Prompt Engineering, Machine Learning, AI-Driven Features

Big Data & Cloud Computing: Google Cloud, Cloud Computing, Data Analytics, Kinesis, Kafka

Cybersecurity & Data Protection: Encryption, Password Hashing, Secure API Development

Software Development: Unit Testing, Debugging, Version Control, Agile Development, Software Engineering, Software Solutions, Code Reviews

Education

Manipal University Jaipur **| CGPA:** *8.16*

Bachelor of Technology in Computer Science and Engineering specializing in Artificial Intelligence and Machine Learning

Work Experience

Full Stack Developer | Ceeras IT Services | 02-2025 - Present

- Developed a marketplace application enabling users to search for products and find nearby shops while allowing shopkeepers to list and update product availability. Integrated Firebase for real-time data management.
- Implemented Node.js and Express.js backend to handle product searches, shop listings, and real-time notifications for shopkeepers when users search for specific products, enhancing marketplace efficiency.

Projects

WhisprAI

- Built a voice-enabled AI assistant using Python that automates tasks like opening websites and sending emails, leveraging Whisper Medium model with over 90% transcription accuracy.
- Integrated real-time audio-to-text conversion and summarization using Google Gemini Pro API, processing voice clips up to 1 minute long and returning summaries in under 2 seconds.
- Designed a contact-email system using contacts.csv and smtplib, enabling voice-activated emails with a tested success rate of 100% across defined contacts.
- Ensured fast and accurate voice interaction using sounddevice and queue, maintaining a low latency of < 1.5 seconds from voice input to action execution.

Advanced Rainfall Prediction and Landslide Fatality Prediction

- Processed and analyzed 33 years of high-resolution IMD gridded rainfall data (1992–2024), covering 12054 days and a spatial grid of 129×135 points (over 1.7 million data points per year).
- Developed and automated a robust data pipeline to convert raw binary rainfall files into xarray DataArrays, handling missing values and enabling efficient multi-year analysis and visualization.
- Engineered and trained a high-performance deep learning model (over 200 epochs) for daily rainfall prediction, achieving a mean absolute error (MAE) below 0.005 (normalized scale) and supporting predictions up to 77.1 mm/day.
- Implemented a forecasting tool capable of generating spatial rainfall predictions for any date and location in India between 1992 and 2024, with visual outputs and post-processing for practical climate analysis.

Smart Fashion Recommendation System

- Built a Machine-Learning-powered fashion recommendation system that detects facial features and suggests color-coordinated outfits using skin tone analysis with over 90% face detection accuracy using InsightFace.
- Integrated color harmony rules (complementary, analogous, neutral) to generate over 500+ logical outfit combinations, improving visual style coherence and user satisfaction.
- Engineered backend in Python using OpenCV, NumPy, and Matplotlib, and optimized it to generate 5 best-matched outfits from 30+ filtered clothing items based on user's gender, usage, and skin tone.
- Leveraged version control (Git) and unit testing, **reducing errors by 30%**, enhancing scalability.

Disaster Guard(Crowd-Sourced Disaster Reporting tool)

- Constructed a Flask-based AI-driven disaster analytics platform utilizing ML models and SQL for real-time disaster report analysis, utilizing Pandas, and NumPy for data analysis. Integrated REST APIs and heatmaps for visualization, improving disaster report **accuracy by 40%**.
- Leveraged LLM prompts to improve disaster response insights.
- Enhanced dashboard usability, making disaster **reporting 70% easier** and **50% faster** compared to traditional methods.
- Applied attention to detail in ensuring the system was user-centric and intuitive for diverse audiences.

Relevant Certifications

LNMHacks 6.0 Hackathon

Data Structures University Of California(C++)

Cloud Computing

Database Programming With SQL

Cryptography and Information Theory

IIT Madras-NPTEL DAA

Soft Skills

Teamwork, Collaboration, Communication, Assist team members, Problem Solving, Attention to detail, Maintaining accurate records, Design, Ability to multitask, work under deadlines.