Krishna Viradiya

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Hi! I am a final-year student from GSFC University pursuing my B.Tech in Computer Science and Engineering (with specialization in Data Science, Machine Learning, and Artificial Intelligence). I have applied, implemented, and analyzed various models in these domains through internships and projects. Additionally, I am experienced working with Graphic Design and 3D Design. I'm always excited to explore, contribute, and collaborate on innovative projects and research opportunities.

KEY EXPERTISE:

Artificial Intelligence, Machine Learning, Natural Language Processing, Deep Learning, Soft Computing, Data Science, Social Network Analysis, Python

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ACADEMIC & INTERNSHIP PROJECTS:

VoiceDiarizer [Github Link] | Internship Project (ONGC)

- Built a real-time voice diarization system using unsupervised clustering and voice-feature reinforcement to separate multiple speakers and generate time-stamped transcriptions.
- Tech Stack: Python, HTML, CSS | Libraries: PyTorch, Flask, Flask-SocketIO, NumPy, Librosa, PyAudio, SpeechBrain, SpeechRecognition, pyannote.audio
- Algorithms/Models: Voice Activity Detection (VAD), Google Web Speech API, ECAPA-TDNN

Cross-Lingual Word Sense Disambiguation using natural language processing [Colab Link] | Academic Project

- Developed a cross-lingual WSD system to resolve word ambiguity in English text and align meanings with Hindi translations.
- Tech Stack: Python | Libraries: Transformers, Torch, NLTK, WordNet, HuggingFace Pipelines
- Algorithms: BERT Embeddings, Cosine Similarity, WordNet Synset Matching, Neural Machine Translation (English➜Hindi)
- Datasets: WordNet (via NLTK), bert-base-uncased, Helsinki-NLP/opus-mt-en-hi

Spam SMS Detection [Github Link] | Personal Project

- Implemented a supervised ML model to classify SMS messages as spam or ham, applying text preprocessing and feature engineering.
- Tech Stack: Python | Libraries: Pandas, re, Pickle, Streamlit, scikit-learn
- Algorithm: Logistic Regression | Achieved high precision & recall on benchmark dataset.

Predicting Sales Prices using Machine Learning [Colab Link] | Academic Project

- Designed a regression pipeline to predict house prices using structured data.
- Tech Stack: Python | Libraries: Pandas, NumPy, scikit-learn, XGBoost, Pickle
- Algorithms: XGBoost Regression, One-Hot Encoding, Simple Imputation, ColumnTransformer Pipelines
- Dataset: Kaggle “House Prices – Advanced Regression Techniques”

Motion Triggered CCTV Recognition System [Github Link] | Personal Project

- Built a real-time surveillance system with motion detection and face recognition.
- Tech Stack: Python, HTML, CSS | Libraries: OpenCV, Flask, TensorFlow, NumPy, Pillow, Gunicorn
- Algorithms: Haar Cascade Classifiers for face & body detection.

Remote Weather Surveillance System | Hackathon Project

- Developed an IoT-based system for remote weather monitoring and air-quality detection.
- Programming Languages: C, Lua | Technologies: DHT11, MQ135, NodeMCU, Arduino Cloud

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PROFESSIONAL EXPERIENCES

GSFC University **Jan 2025 - Nov 2025**
Academic Associate
As an Academic Associate at GSFC University, I taught **C++ programming** with **Object-Oriented Concepts** to 2nd-semester students, designing lab-based sessions to strengthen their understanding of OOP fundamentals. Currently, I am teaching **C programming** to 1st-semester students, focusing on building strong programming foundations through practical and interactive learning.

Oil and Natural Gas Corporation (ONGC) **Dec 2024 - Jan 2025**
Machine Learning Intern
As an intern i created a **Live Speech Diarizer and Transcription Model** which can diarize our mono channel audio into separate tracks along with basic preprocessing, it can also Transcribe audio with minimal latency and can be used in many real life scenarios like a CCTV Camera or it can be used to transcribe and summarize an meeting to get insights without attending it.

MaMo TechnoLabs **Dec 2023 - Jan 2024**
Graphic Design Intern
As an intern I created a visually appealing social media assets, including posts, reels, and stories, along with banners and logos to enhance brand presence and ensure cohesive identity, while optimizing engagement through content calendar planning using **Figma, Canva, and Illustrator**.

TECHNICAL SKILLS

- **Artificial Intelligence & Machine Learning:** Python Libraries that include Flask, Torch, Numpy, Pandas, Matplotlib, Librosa, pyannote.audio, speechrecognition, SpeechBrain, OpenCV
- **Programming Languages:** Python, Java, C++, C, C# Scripting
- **Database Management:** MySQL, Microsoft SQL, SQL Server, MongoDB
- **Design Tools:** Figma, Canva, Illustrator
- **AR-VR:** Unity (completed Unity Essential and Junior Programmer Modules)
- **Web Development:** HTML, CSS, JavaScript
- **Others:** Data Structure & Algorithm, OOPs, Problem Solving

SOFT SKILLS

Leadership, Management, Creativity, Logical Thinking, Communication, Teamwork, Confidence, Adaptability, Time Management, Continuous Learning, Public Speaking, Feedback Acceptance, Networking

EDUCATION

Bachelor of Technology (specialization in AI, ML & DS) — October 2022 - present
Computer Science and Engineering, GSFC University — CGPA: 7.84

Higher Secondary Certificate (Science [P, C, M]) from CBSE — 2022
J. B. & KARP Vidya Sankul, Surat — Percentage: 77.8

Secondary School Certificate from CBSE — 2020
J. B. & KARP Vidya Sankul, Surat — Percentage: 92.6

CERTIFICATIONS

- NPTEL Online Certification in Social Network Analysis
- UAS/Drone Technology by Centre for Development of Advanced Computing (C-DAC)
- Python (Basic): Certified by HackerRank for fundamental Python programming skills.
- SQL (Basic): Certified by HackerRank for foundational SQL knowledge.

EXTRACURRICULAR ACTIVITIES & LEADERSHIP ROLES

- Web Committee ICMC, 2nd International Conference by GSFC University
- President, Indian Heritage Club (2024-25)
- Creative Head, Ananta'24
- Social Media Head, Elite Management Club