

MANASI SUYAL

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Profile

AI/ML enthusiast and recent B.Tech (CSE) graduate with expertise in building real-time machine learning pipelines, analytics dashboards, and intelligent systems. Skilled in Python, SQL, TensorFlow, and Scikit-learn, with strong foundations in DSA, system design, and AI-driven personalization. Passionate about multi-agent AI, anomaly detection, churn prediction, and fast prototyping aligned with next-gen Web3 and gaming analytics.

Education

Graphic Era Deemed to be University, Dehradun

Oct 2021 – Jun 2025

B.Tech. in Computer Science and Engineering — Coursework: ML, AI, DSA, Data Analytics

Experience

AI Intern – CodSoft

Oct 2024 – Nov 2024

Remote

- Developed a personalized movie recommender using TF-IDF vectorization and cosine similarity.
- Implemented a Tic-Tac-Toe AI agent (Minimax + Alpha-Beta pruning) to demonstrate adversarial search.
- Engineered a real-time face detection system using OpenCV DNN with optimized frame capture pipelines.

Projects

Sign Language Detection System — CNN, OpenCV, TensorFlow, Python

- Built a real-time ASL recognition system with CNN (TensorFlow/Keras), achieving 95%+ accuracy and latency below 150ms.
- Engineered a frame preprocessing module (cropping, normalization, resizing) for optimized inference.
- Integrated text-to-speech (pyttsx3) to enable voice output for hearing-impaired users.
- Architected a modular and scalable design supporting future gesture additions and multilingual TTS.

Cronify: OS-Level Task Scheduler — Python, Tkinter, Multithreading

- Developed a GUI-based scheduler for Windows, inspired by Unix cron, to automate periodic background tasks.
- Implemented thread-safe job execution to prevent UI blocking during concurrent task runs.
- Enhanced stability with error logging, crash recovery, and resource isolation, reducing crashes by 30%.

Multilingual Sentiment Analyzer — Flask, Scikit-Learn, NLTK, Python

- Developed a polarity-based sentiment classifier supporting English and Hindi using NLTK and TextBlob.
- Built a text preprocessing pipeline with tokenization, stemming, and code-mixed language support.
- Optimized Flask APIs to achieve sub-100ms response times for real-time sentiment inference.
- Prepared architecture for future integration of transformers (BERT) via LangChain for zero-shot classification.

Superstore Sales Analytics Dashboard — Power BI, Pandas, SQL

- Performed EDA on 10K+ records to analyze trends in revenue drop, churn, and category-level losses.
- Designed interactive dashboards with KPIs, slicers, and customer segmentation filters.
- Implemented SQL ETL pipelines and Pandas transformations for data cleaning and consistency.

Marketing Funnel & ROI Dashboard — Python, SQL, Power BI

- Developed a data pipeline for analyzing marketing KPIs (CTR, CPL, CPA, ROI) from raw datasets.
- Authored 30+ SQL queries for metric extraction and integrated results with Power BI dashboards.
- Automated campaign reports with Python ETL scripts for daily updates and visualization.

Skills

- **Languages:** Python, SQL, C++, Java, JavaScript
- **ML/AI:** TensorFlow, Scikit-Learn, CNNs, NLP, Sentiment Analysis, Recommender Systems
- **Data Tools:** Pandas, NumPy, OpenCV, Power BI, TextBlob, NLTK
- **Concepts:** Multi-Agent AI, Real-Time Analytics, Churn Prediction, Anomaly Detection, RAG, Prompt Engineering
- **Other Tools:** Git, Linux, REST APIs, Multithreading, Jupyter, Fast Prototyping

Achievements

- Naukri Campus Young Turks: Ranked in top 3.16% nationally (96.84 percentile).
- Certifications: Generative AI (LinkedIn Learning), Google Data Analytics Professional Certificate
- Scholarship: Awarded for academic excellence in national board exams.