

Nitin Kumar Mishra

Aspiring professional specializing in Machine Learning, Deep Learning, and Natural Language Processing.

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EDUCATION

VIT Bhopal University (2022 – 2026)

B.Tech in Computer Science Engineering, specialization in AI/ML, CGPA: 8.01

Bhopal, India

Sainik school Bhubneshwar (2021-2022)

12th standard, Percentage: 75%

Bhubneshwar, Orissa

Sainik school Bhubneshwar (2019-2020)

10th standard, Percentage: 82 %

Bhubneshwar, Orissa

PROJECTS

ChurnDefender– Customer Churn Prediction App

(<https://github.com/HumourSpeech/ChurnDefender>) | *Python, TensorFlow, Streamlit, scikit-learn* | Jan-Mar 2025

- Built an interactive web application using Streamlit to forecast customer churn, leveraging a pre-trained deep learning model developed with TensorFlow and Keras.
- Enabled real-time predictions with user-friendly input widgets like sliders, numeric fields, and dropdown menus.
- Implemented preprocessing techniques including label encoding (gender), one-hot encoding (geography), and feature scaling with StandardScaler to prepare data for the model.
- Utilized Pickle to load the trained neural network and preprocessing pipeline, enabling fast, retrain-free inference.
- Successfully deployed the app on Streamlit Cloud, allowing seamless public access and user interaction.

Voice-Activated Form Assistant for Secure Banking

Python, HuggingFace Transformers, Web Speech API, scikit-learn, BeautifulSoup, Regex | March-May 2025

- Engineered an end-to-end NLP system capable of extracting structured information (Name, Phone Number, Amount, Account Number) from voice inputs in English, Hindi, and Odia.
- Leveraged the Web Speech API for real-time voice recognition and language translation to standardize inputs across multiple languages.
- Employed DistilBERT for contextual entity classification, achieving an F1-score exceeding 0.98 for key label identification.
- Developed a custom regex-based extraction module to accurately parse entities (e.g., monetary values, contact numbers) from transcribed text.
- Deployed the solution using Streamlit to deliver a responsive, real-time voice-controlled form-filling interface.

Sentiment Analysis on SpamAM dataset

(<https://github.com/HumourSpeech/Natural-Language-Processing>) | *NLTK, BeautifulSoup, Word2Vec* | Sep-Nov 2024

- Built a sentiment classification pipeline using **AvgWord2Vec** for vectorization and Logistic Regression for modelling, boosting accuracy from 57% (TF-IDF) to 82%.
- Executed comprehensive preprocessing: text normalization, removal of stopwords/special characters, stripping of URLs and HTML tags, and lemmatization via **WordNetLemmatizer**.
- Utilized NLTK and BeautifulSoup to enhance text cleaning and robustness, and optimized model performance with hyperparameter tuning.
- Designed a clean, modular pipeline to support real-time sentiment inference for seamless integration into broader applications

SKILLS

Technical skills : Machine Learning, Deep Learning and Natural Language Processing

Programming Languages: Python, Java, C++

Frameworks and Libraries: TensorFlow, Scikit-Learn, NLTK, SpaCy, Sumy, Gensim, BeautifulSoup, Flask

Databases: SQL, MySQL, MongoDB

Soft Skills: Team Leadership, Cross-functional Collaboration, Agile Workflow.

LICENSES & CERTIFICATIONS

Python Essentials – Vityarthi

Complete NLP Bootcamp – Udemy

Privacy and Security in Online Social media – NPTEL

HTML, CSS, and JavaScript for web developers – Coursera