## KATROJU ABHINAY

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## **EDUCATION**

Parul University
B. Tech CSE (AI)
NRI Junior College
MPC(Mathematics,Physics,Chemistry)
SPR School Of Excellence
School

Gujarat, India August 2021- April 2025 Telangana, India June 2019 - March 2022 Telangana, India April 2019

## SKILLS SUMMARY

Languages: Python, JAVA, SQL, AIML

Frameworks: Tensorflow, PyTorch, Scikit-learn, Keras, NLTK

• Tools: Git, Github

Libraries: Pandas, Numpy, Matplotlib

• Soft Skills: Excellent communication, People management, Creativity, Time management, Group Discussion

## **WORK EXPERIENCE**

## MACHINE LEARNING INTERN

December 24 - April 25

- Developed and implemented machine learning models for real-world applications such as classifications, regression. Streamlined data collection and reporting procedures, reducing processing time by 20% enhancing efficiency.
- Implementation of industry relevant projects to enhance practical knowledge.
   Collaborated with mentors and cross functional teams to optimize models using techniques such as hyperparameter Tuning and cross validation.

## ARTIFICIAL INTELLIGENCE INTERN

August 25 - present

• Working as AI Inter at Infosys Springboard, focusing on developing innovative AI solutions that bridge technology and user experience. Successfully architected and deployed a comprehensive AI music composition platform, demonstrated expertise in machine learning model integration, secure web application development, and production deployment. Gaining valuable experience in expertise AI development practices, agile methodologies, and collaborative software engineering while contributing to cutting-edge artificial intelligence projects.

## **PROJECTS**

# AI - BASED MUSIC COMPOSITION SYSTEM

August 25 - September 25

- Developed an Al-powered music composition web application using Python, Streamlit, PyTorch that converts natural language mood descriptions into personalised music compositions.
- Implemented secure user authentication with PBKDF2 hashing, session management, and SQLite database integration for user profiles and music history tracking.
- Integrated Hugging Face Transformers for sentiment analysis and Facebook's MusicGen model for real-time audio generation, delivering high-quality MP3 outputs with seamless user experience.

#### SENTIMENT ANALYSIS

December 23 - November 24

- Developed a sentiment analysis model using python.
- The goal of sentiment analysis is to determine whether a given text expresses positive, negative, or neutral sentiment toward a particular topic, entity, or product.
- Collected and cleaned large-scale datasets using python and pandas to prepare for sentiment labeling and model training.

## HEART DISEASE PREDICTION

January 25 - April 25

- Machine learning analyzes patient data to predict heart disease risk, enabling early intervention. It also enhances diagnostic accuracy by interpreting complex medical images and signals.
- Applied cross-validation techniques to ensure model generalizability and reduce overfitting. Conducted data preprocessing including handling missing values, normalization, and feature selection using PCA.

## FOREST COVER TYPE PREDICTION

February 25 - April 25

- A machine learning based model to predict the type of forest cover using analysis data for 30X30 patches of land in the forest.
- Utilized python and streamlite to build a classification model on the UCI forest cover type dataset.
- Uses supervised learning algorithm to predict forest cover the model learns pattern from datatype.

## CERTIFICATES

## DELOITTE AUSTRALIA'S TECHNOLOGY JOB SIMULATION

June 2025

- Completed a job simulation involving developing and coding.
- Wrote a proposal for creating a dashboard.

## GEODATA PROCESSING (IIRS,ISRO)

Feb-17-25 to Feb-28-25

 Gained hands-on experiences in satellite imagery analysis, digital image processing, and spatial image processing and spatial data interpretation using remote sensing and GIS technique. Using python and machine learning.

## MACHINE LEARNING (Unified Mentor PVT, LTD)

December 24 - April 25

Built real-world ML models including regression, classification, and sentiment analysis. Hands on experience
with libraries such as python, scikit-learn, pandas, Numpy, and matplotlib.

## WORKSHOP (FLUTTER)

April 2022

Participated in a flutter workshop focused on building cross-platform covering UI design, and firebase integration.

#### ORACLE CLOUD INFRASTRUCTURE GEN AI PROFESSIONAL

August 2025

- Achieved Oracle Certification in Generative AI on Oracle Cloud Infrastructure.
- Gained expertise in deploying, managing, and optimizing AI models on OCI.