Sowmya M

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EDUCATION

Lovely Professional University

Jalandhar, Punjab

B. Tech. in Computer Science and Engineering

Expected Graduation, April 2025

- Concentrations: Machine Learning and Data Science
- o **CGPA:** 7.78/10.00, *Dean's List*
- Related Coursework: Data Structures & Algorithms, Design & Analysis of Algorithm, Database Management System, Computer Networks, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Discrete Mathematics, Probability and Statistics.

Nachimuthu Polytechnic College

Pollachi, Tamil Nadu

Diploma in Electronics and Communication Engineering

July 2019 - April 2022

CGPA: 9.468/10.00, *Dean's List*

CERTIFICATIONS

Complete Data Science and Machine Learning Program

GeeksforGeeks

July 2023 - Dec 2023

- Designing, developing, and implementing machine learning models and algorithms to solve real life problems.
- Collect, clean, and preprocess large datasets for model training.
- Evaluate and fine-tune models for optimal performance.
- Worked on end-to-end machine learning projects, from problem definition to deployment.

Natural Language Processing Specialization by DeepLearning.AI

Coursera

Dec 2023 - Feb2024

- Designing NLP applications that perform question-answering and sentiment analysis, create tools to translate languages and summarize text, and even build chatbots.
- Use dense and recurrent neural networks, LSTMs, GRUs, and Siamese networks in TensorFlow and Trax to perform advanced sentiment analysis, text generation, named entity recognition, and to identify duplicate questions.

PROJECTS

Object Classification Model for Waste Management

Team Member

Oct 2023 – Nov 2023

- Developed a Convolutional Neural Network (CNN) model for precise garbage/non-garbage classification.
- Extended the model to identify animals and detect flammable items in waste materials.
- Implemented the CNN model using TensorFlow and Keras with an accuracy of 82.4%, contributing to improved waste management and safety.

PUBG Match Outcome Predictor

Team Lead

Jan 2024 – Feb 2024

- Trained machine learning models to predict the PUBG Match Outcome using GBR, LGBM, CatBoost, Random Forest algorithms.
- Analysed various player statistics and game characteristics to identify factors influencing match outcomes.
- Implemented techniques like feature engineering, model selection, hyperparameter tuning to build and optimized the prediction model to give an accuracy of 90.01%.

AI – Powered Coding Assistant Project

Personal Project

Nov 2023 - Dec 2023

- Applied prompt engineering using Python and OpenAI API.
- Generated context aware debugging prompts, streamlining issue resolution and delivered personalized code refactoring suggestions based on best practices.
- Significantly improved the programming experience through innovative prompt strategies.

SKILLS

Programming: Java, Python, Kotlin (Android), .NET, C, C++, Jetpack Compose, XML.

Machine Learning: Scikit-Learn, PyTorch, Tensor Flow, NLTK, Keras, Transformers, Pandas, NumPy, Matplotlib, Seaborn, Statistical Analysis.

Tools: AWS Sagemaker, Google Collab, Jupyter Notebooks, Git, Android Studio, IntelliJ, SQL Server, Visual Studio, Visual Studio Code.