VARSHA A

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SUMMARY

B.Sc. Artificial Intelligence and Machine Learning graduate with an 8.92 CGPA and 3rd University Rank, specializing in data analysis, machine learning, and deep learning. Proficient in Python, SQL, Pandas, NumPy, and Scikit-learn, with hands-on experience in data preprocessing, exploratory data analysis, feature engineering, model development, and evaluation. Developed end-to-end machine learning and deep learning projects involving predictive modeling, NLP, and Generative AI integration. Interested in building data-driven solutions and deploying intelligent models to solve real-world problems.

SKILLS

Programming Languages: Python, SQL
Data Analysis & Processing: Pandas, NumPy, Exploratory Data Analysis (EDA), Data Cleaning, Data Preprocessing, Feature Engineering, Data Visualization
Machine Learning: Scikit-learn, Supervised Learning, Unsupervised Learning, Classification, Regression, Clustering, Model Evaluation, Hyperparameter Tuning, Cross-Validation
Deep Learning: PyTorch, TensorFlow, Keras, Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN)
NLP & Generative AI: Natural Language Processing, Text Classification, Large Language Models (LLMs), Gemini API, Prompt Engineering
Deployment & Tools: Flask, Joblib, Jupyter Notebook, Git, GitHub

PROJECTS

ENVIRONMENTAL AUDIO CLASSIFICATION SYSTEM [GitHub]

TOOLS: Python, PyTorch, Hugging Face Transformers, Librosa, Scikit-learn

- Fine-tuned a pretrained Audio Spectrogram Transformer (AST) on the ESC-50 dataset to classify environmental audio into 50 distinct sound categories.
- Implemented audio preprocessing, feature extraction, model training, validation, and performance evaluation using deep learning techniques.
- Achieved 93.50% test accuracy and 0.9325 macro-F1 score across 400 held-out audio recordings.

INTELLIGENT RESUME–JOB MATCHING AND SKILL ANALYSIS SYSTEM [GitHub]

TOOLS: Python, Pandas, NumPy, Scikit-learn, Flask, Gemini API

- Analyzed and preprocessed 204,000 labeled resume–job pairs using exploratory data analysis and feature engineering to identify compatibility patterns.
- Trained and evaluated five classification algorithms using accuracy and F1-score, achieving 97.59% test accuracy and a 0.9764 F1-score with Random Forest.
- Integrated the selected machine learning model with the Gemini API into a Flask application to enable automated resume–job compatibility analysis.

EDUCATION

B.Sc. Artificial Intelligence and Machine Learning — **May 2026**
KPR College of Arts Science and Research — **CGPA: 8.92**
Higher Secondary Education — **2023**
Vidya Mandir Matric Higher Secondary School — **Grade: 88%**

CERTIFICATIONS

Advanced Data Science with Machine Learning – *Entri Elevate (In Progress)* — Jun 2026 – Dec 2026
Data Science Job Simulation – *Forage* — Sep 2026
Fundamentals to Become a Machine Learning Engineer – *LinkedIn Learning* — Nov 2024
Prompt Engineering Courses (6 Courses, Approx. 10 Hours) – *LinkedIn Learning* — 2026

ACHIEVEMENTS

Best Paper Award – Recognized for research on a Multiple Disease Prediction Model at a CSDA Conference.

University 3rd Rank – Achieved university-level academic distinction in B.Sc. Artificial Intelligence and Machine Learning.

Best Presentation Award – Recognized for an outstanding research presentation at an international conference organized by the Department of Commerce.

Leadership & Coordination – Led a team of 6 peers and served as Master of Ceremonies at Meta Meet 2025, demonstrating coordination, mentoring, and communication skills.