MEGHA ASHOK RABAGANNAVAR

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EDUCATION

B.E in Computer Science and Engineering, SJCE 2022 – 2026
JSS Science and Technology University, Mysore *CGPA: 9.17 / 10*

TECHNICAL SKILLS

Languages: Python, Java, C, SQL, JavaScript (Beginner), HTML, CSS
ML/DL: Supervised & Unsupervised Learning, CNN, RNN, ANN, Feature Engineering, Model Deployment
Frameworks & Libraries: Scikit-learn, TensorFlow, Pandas, NumPy, OpenCV, Librosa
Tools & Platforms: MLFlow, GitHub, Docker, Power BI, Flask, Google Colab, VS Code
Databases: MySQL, SQLite
Big Data: Apache Spark, Hadoop (Learning Phase)
Core Subjects: OOP(Java)S, Data Structures and Algorithms, Operating Systems, DBMS, Computer Networking

PROJECTS

1. **Agri Smart – ML, CNN, Flask, REST APIs**
   • Designed an integrated agriculture platform with **3 core modules**: crop recommendation, soil analysis, and disease detection.
   • Trained models using datasets of **5,000+ records** for crop and soil, and **90000+ images** for plant diseases (CNN-based).
   • Integrated external APIs for live **market rates and news**, with modular Flask backend.
   GitHub

2. **Audio Deepfake Detection – CNN, Librosa, Flask, TensorFlow**
   • Developed a fake voice detection system using the **ASV spoof dataset (14,000 .wav files)**; converted audio to **mel spectrograms**.
   • Trained a **4-layer CNN** (3×3 kernels, ReLU, max-pooling, SoftMax) achieving **99% test accuracy** over 10 epochs using Adam optimizer.
   • Deployed a **Flask-based multi-page web app** with user login and admin dashboard; supported **real-time predictions with spectrogram and confidence score**.
   • Applied **dropout, L1 regularization, and batch tuning** to reduce overfitting and improve generalization.
   • Serialized model with **pickle**, integrated prediction pipeline in Flask, and ensured secure upload with basic authentication. GitHub

3. **Student Attendance Management System – Flask, SQL, JS**
   • Developed a role-based system for admins and teachers to manage attendance across **20+ classes**.
   • SQL-based backend with normalized schema storing **3,000+ attendance logs**.
   • Deployed via CI/CD pipeline; front-end optimized for low-bandwidth access.
   Live Demo

4. **Student Performance Prediction – Supervised ML, Flask**
   • Processed academic and demographic data of **500+ students** to forecast grades and flag at-risk profiles.
   • Trained multiple regression models and selected the best using **cross-validation and error metrics (MAE, RMSE)**.
   • Deployed a Flask-based web interface for educational stakeholders.
   GitHub

5. **Snakes and Ladders Game – Java, DSA**
   • Developed an OOP-driven game logic with linked list-based board traversal and dice event handling.
   • Applied core data structures and object-oriented design patterns to simulate classic gameplay.
   GitHub

CERTIFICATIONS

- **Generative AI with Google Cloud – Google Cloud, 2024**
- **Machine Learning with Python – Coursera, 2023**

ACHIEVEMENTS

- **Amazon FFE Scholar (2024 Mentee)** **2nd Prize – Algorithm Contest, Computer Society Club**
  Completed FLY Program – Competitiveness Mindset Institute (USA), Communication, Time Management
- **Languages Known: English, Kannada**