Rumana Begum

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Professional Summary

I am seeking an opportunity in the field of technology to apply my relevant skills and gain hands-on experience. I am enthusiastic about contributing to a professional team and eager to learn and grow within this dynamic industry.

Education

Ramaiah Institute of Technology 2022-2025
B.E.- Artificial Intelligence and Machine Learning

Acharya Polytechnic 2019-2022
Diploma in Computer Science and Engineering

Soundarya School 2018-2019
Karnataka Secondary Education Entrance Board

Work Experience

TwiLearn Edutech Pvt. Ltd **Sep 2023 - Dec 2023**
Data Analytics Intern *Remote*

- Collected and cleaned data using Python**(Pandas, NumPy)** and SQL, and analyzed trends and patterns.
- Created visualizations and interactive dashboards with **Matplotlib**,**Seaborn**, and **Tableau** to present insights.
- Developed and evaluated machine learning models using scikit-learn for predictive analytics.

Technical Skills

Languages: Python, C Programming, C++, JavaScript
Backend: Django, Node.js
Frontend: HTML, CSS, JavaScript
AI Stack: Machine Learning, Deep Learning, Natural Language Processing, Computer Vision
Scripting and Automation: Unix Shell Scripting, UiPath Automation
Developer Tools: GitHub, VS Code, Jupyter Notebook, Google Colab, CodeBlocks, UiPath Studio

Projects

RealTime Handwritten Kannada Character Recognition.

- The aim of this project is to perform real-time handwritten Kannada character recognition using **computer vision** and **machine learning** techniques.
- The model is capable of predicting kannada digits and alphabets which comprises of **40+classes**.
- The model is experimented with various machine learning algorithms such as **SVM**, **KNN**, and **CNN** to achieve an optimal accuracy of more than **93%**.
- Here, users can voluntarily draw any of the Kannada characters in real time using **3DPaint** tool and check for the predicted class.

Text to Speech and Speech to Text Conversion with NLP Insights

- Worked on Text to Speech conversion using the **Pyttsx3** library and Speech to Text conversion using the **SpeechRecognition** (sr) library.
- Developed a user-friendly GUI for this model which included features such as speed control, voice selection, and audio downloading options.
- Enhanced this project by integrating **Natural Language Processing** (NLP) to provide additional insights such as **word/sentence** count and **sentiment analysis** on the sentences.

Leaf Disease Detection System

- In this project, I have developed a full solution that includes both a **Convolutional Neural Network** (CNN) for predicting leaf diseases in crops and a **front-end** interface for user interaction.
- The trained CNN model achieved an impressive accuracy of more than **95%**, demonstrating its effectiveness in early disease detection. This high accuracy can facilitate timely treatment, thereby reducing economic losses and improving crop yield in agriculture.

Spoken Languages

Fluent in English, Hindi, Kannada, Urdu.