Rumana Begum

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Professional Summary

Aspiring technology professional seeking opportunities to leverage my skills and gain practical experience in a dynamic and innovative environment. Highly motivated to contribute to a professional team, continuously learn, and grow within the technology 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: Python, 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.

- Engineered a real-time Kannada character recognition system leveraging **computer vision** and **machine learning** methodologies.
- Developed a model for classifying **40+ character classes**, achieving **93% accuracy** with **CNN**. Simultaneously conducted a comparative analysis of **CNN**, **SVM**, and **KNN** techniques.
- Developed an interactive interface with the **3DPaint** tool, enabling real-time character input and immediate **classification results**.

Attendance-Surveillance-System-using-CNN

- Designed and implemented an **Attendance Surveillance System** using **Convolutional Neural Networks (CNNs)**, achieving **87.5% accuracy** in face recognition through **FaceNet** transfer learning.
- Developed a user-friendly interface with **Tkinter** for image uploading, recognition, and results export to **Excel**, enhancing **attendance tracking efficiency** in educational environments.

Text to Speech and Speech to Text Conversion with NLP Insights

- Implemented **Text-to-Speech** (TTS) conversion utilizing the **Pyttsx3** library and **Speech-to-Text** (STT) conversion with the **SpeechRecognition** library.
- Designed an intuitive **Graphical User Interface (GUI)** incorporating features such as **speed adjustment**, **voice selection**, and **audio export** capabilities.
- Enhanced functionality by integrating **Natural Language Processing (NLP)**, providing advanced **text analytics** including **word/sentence count** and **sentiment analysis**.

Spoken Languages

Fluent in English, Hindi, Kannada, Urdu.