

Final Project Ideas

1. **Sign Language to Text Translation**

This idea came to me after observing the challenges faced by individuals with hearing and speech impairments during conversations. The goal of this project would be to design an application that translates sign language into the corresponding text.

Upon researching this topic, I discovered that it's a highly complex project involving large datasets and significant challenges in training the model effectively. While I believe I could work on it, I'm uncertain if it can be completed within the given timeline. Could you please let me know if this project is feasible, or if I could rely on your guidance to navigate through it?

2. **Image Captioning System**

This project would involve training a model to recognize images and generate captions for them. Such a system could be particularly useful for children, helping them learn in a more practical and interactive manner.

3. **Predictive Maintenance for Devices Using Machine Learning**

The primary goal of this project is to develop a machine learning model that predicts potential device or machinery failures before they occur, enabling timely maintenance and minimizing downtime.

In industries relying on heavy machinery or IoT devices, unexpected failures can lead to significant operational losses. This project involves collecting sensor data from devices or machines (e.g., temperature, vibration, pressure, etc.) and using it to identify patterns that precede failures.

This project will help reduce unexpected equipment failures, lower maintenance costs, and improve overall operational efficiency. It can be applied across industries such as manufacturing, transportation, and healthcare, where predictive maintenance is critical.