Abstract

Machine learning is a subfield of artificial intelligence, which is broadly defined as the capability of a machine to imitate intelligent human behavior. Artificial intelligence systems are used to perform complex tasks in a way that is similar to how humans solve problems. Diabetic Foot Ulcers (DFUs) represent a critical health concern for individuals with diabetes, necessitating early detection and classification for effective management. The system utilizes a diverse dataset of medical images acquired through various modalities, include digital photography. Image preprocessing techniques are applied to resizing of image data.

The Machine learning models like **Random Forest** and **Logistic Regression** is specifically a combination of supervised learning algorithms, is trained on the annotated dataset to distinguish between healthy and ulcerated foot regions. The model employs a set of features derived from the images to make accurate predictions. Here we use machine learning models like **Random Forest** and **Logistic Regression** because of high accuracy and reliability in predicting the result. It also provides User-Friendly Interface for Seamless Integration.