ARTIFICIAL INTELLIGENCE IN THE DIAGNOSIS OF ORAL DISEASES

In this project proposal, dive into the various applications of AI in oral disease diagnosis, covering areas such as image analysis, data mining, natural language processing, and machine learning. Highlight how these technologies can facilitate the early detection, classification, and treatment planning of oral diseases, ultimately leading to improved patient outcomes. Outline the specific benefits that AI can bring to the field of dentistry, including increased speed and efficiency in examining large datasets, reduction of human error, and standardization of diagnostic criteria.

The primary objectives of this project proposal are as follows:

a. Develop an AI-based system capable of identifying various oral diseases accurately.

b. Train the AI algorithms using a comprehensive dataset that encompasses a diverse range of oral disease cases.

c. Ensure the system's compatibility with existing dental imaging technologies and electronic health records (EHR) systems.

d. Evaluate the performance of the AI system through rigorous testing, comparing its results against those obtained by human experts.

e. Address the potential limitations, ethical considerations, and pitfalls associated with implementing AI in oral disease diagnosis.

Our proposed solution is to leverage the power of AI and machine learning algorithms to develop an automated system that can analyze panoramic radiographs and assess the likelihood of various common oral diseases. Furthermore, we will incorporate a user-friendly questionnaire to gather additional patient-specific data that can influence the final diagnosis.

References:

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