June 1, 2024

Dear DentalSetup.ai Hiring Team,

I am writing to express my enthusiastic interest in the Software Engineering Intern – **AI Copilot for Dentists** position at DentalSetup.ai, as advertised. My academic background in Artificial Intelligence, coupled with practical project experience, makes me a highly motivated and suitable candidate eager to contribute to your innovative pre-seed startup that is revolutionizing dental practices with AI.

My final year project, **DentalAI**, where I developed a **CNN-based deep learning model to predict dental angles from X-ray images** and designed it to assist dentists with automated dental analysis, directly aligns with DentalSetup.ai's mission. This experience involved processing medical imaging data, implementing supervised learning with MSE loss and Adam optimizer, and evaluating performance using MAE, RMSE, and R^2 metrics. Additionally, my work on **Classification of Lung Abnormalities Using CNN** and **Disease Prediction** further demonstrates my strong foundation in applying deep learning to medical applications and my commitment to leveraging **AI's potential in healthcare**.

During my Machine Learning Internship at Kairiz Cyber Technologies, I gained valuable hands-on experience in **model optimization**, **data preprocessing**, and **feature engineering**, contributing to predictive analytics solutions. I am proficient in **Python** and **Node.js**, skills directly applicable to your backend requirements. While I am keen to expand my expertise with technologies such as **LLMs**, **RAG pipelines**, and frontend frameworks like ReactJS mentioned in your stack, I am a rapid and enthusiastic learner, confident in my ability to quickly adapt and contribute effectively, embracing the opportunity to work directly with the CTO.

I am particularly excited by the prospect of shipping features fast and iterating with real user feedback, combining my technical skills with my core strengths in **Problem Solving**, **Analytical Reasoning**, and **Team Collaboration**. I am confident that my passion for AI, particularly in medical contexts, and my proactive approach to learning new technologies, would allow me to make significant contributions to DentalSetup.ai.

Sincerely,

Syed Kazim Haider