

October 25, 2024

Dr. Mark Hans
Professor and Chair
Department of Orthodontics
School of Dental Medicine
Case Western Reserve University

Dear Dr. Mark Hans,

I am writing to express my keen interest in the AI development position within the Department of Orthodontics at the School of Dental Medicine. As a Master's student in Computer Science at Case Western Reserve University, I am excited about the opportunity to contribute to your groundbreaking project on developing AI tools for radiographic feature identification and analysis.

My background includes strong programming skills in Python, R, MATLAB, and C. I have hands-on experience with machine learning, computer vision, and data science techniques, which I believe are directly applicable to your research needs.

- **Machine Learning Experience:** As a Machine Learning Intern at IIT Hyderabad, I worked on speech recognition using artificial neural networks, achieving a 95.6% accuracy rate.
- **Relevant Projects:**
 - *Myers-Briggs Personality Test Using NLP and Machine Learning:* Developed a model that identifies personality types based on social media posts with an 83.8% accuracy.
 - *Sentiment Analysis on Social Media Using Apache Spark and NLP:* Analyzed real-time social media data to gauge public sentiment, improving analysis accuracy by 30%.
 - *Credit Card Defaulters:* Engineered a data pipeline and applied machine learning models, achieving a 94% accuracy in classifying credit scores.
- **Publications:** Co-authored research papers on machine learning models and natural language processing applications.

I am confident that my technical skills and research experience make me a strong candidate for this position. I am eager to apply my expertise to assist in developing AI tools for radiographic analysis and to contribute to the success of your project.

Thank you for considering my application. I look forward to the opportunity to discuss how I can contribute to your team.

Sincerely,

Koushik Mannam

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