

My aspiration to pursue graduate studies at the University of Oxford is driven by my deep commitment to harnessing advanced computer science techniques—particularly AI—for real-world medical impact. I am applying for the MSc in Advanced Computer Science with the intention of progressing to a DPhil in Computer Science, focusing on AI-driven medical diagnostics.

My academic background in Computer Science (BSc, expected with First Class Honours), alongside extensive training in AI, deep learning, and image processing, has provided me with both theoretical and practical foundations. I led a graduation project titled *Fracture Wise*, a web-based system that detects bone fractures from X-ray images using deep convolutional networks. This project refined my skills in computer vision, model evaluation, and user-centered application design.

Oxford's MSc will allow me to deepen my understanding of core topics such as computational learning theory and geometric deep learning, aligning perfectly with my goal to develop robust and scalable medical AI systems. The course's unique balance between rigorous theory and cutting-edge applications will prepare me to undertake doctoral research at the intersection of AI and healthcare.

Should I proceed to the DPhil, I intend to join the Department of Computer Science to investigate interpretable deep learning for medical imaging. I am especially interested in working under the supervision of [e.g., Prof. Thomas Lukasiewicz or Prof. Alison Noble], whose research aligns with my interests in explainable AI and biomedical applications. My proposed research will explore methods that increase transparency in diagnostic models, enabling safer deployment in clinical environments.

Studying at Oxford will not only stretch me intellectually but will immerse me in a world-class research culture and a collaborative academic community. I am confident that this environment will support my academic growth and help me contribute meaningful research with tangible societal benefits.