Motivation Letter

For MBZUAI Machine Learning Winter School 2026

It is important to understand rather than to remember. This quote by Richard Feynman always hits me hard. I was a student who always tried to remember things instead of understanding the idea behind the question. With time, this approach became harder — I couldn't remember things anymore, and that's when this quotation came into my life. We all learn from mistakes.

I am a student of **Master's in Data Science** and hold a **Bachelor's degree in Computer Engineering** from the **University of Engineering and Technology, Lahore, Pakistan**. When I entered university in my early days, I often heard terms like AI, ML, and DL. This was the time when people had just started relying on ChatGPT. Semester by semester, I began to understand what AI was, and that curiosity drove me to learn more.

In my final year, I met a friend, **Faisal**, who is a research-oriented person and had seen my blog where I occasionally write literary articles. He encouraged me to pursue research. Through his reference, I got introduced to a lab in the Al-Khwarizmi Institute of Computer Science (KICS), where I polished my skills in ML, DL, and NLP, and started working on **solar energy forecasting**, where we reviewed the literature of the past ten years and wrote a review article on it.

In my spare time, I kept learning new and more advanced algorithms and how to train and use them in different projects. Within six months, I mastered all three fields by taking various online courses from YouTube.

When it was time to apply my knowledge to the real world, Faisal and I once visited **Punjab University** for a research-related discussion with **Dr. Waseem** from the Department of Material Science. He introduced us to two Final Year Project groups interested in applying ML in their projects. We took up the challenge, applied various ML and DL techniques, and finally presented the project at **PAAPAM — Pakistan Association of Automotive Parts & Accessories Manufacturers**, where we won **first position in the Engineering Innovation Awards**.

Dr. Waseem also introduced me to one of his PhD students in Turkey, **Muteeb**, who was inspired by my work and asked me to teach him ML and DL. He and his wife remained consistent, and I taught him machine learning in two and a half months. Later, I worked on two projects with him related to material science, where I applied different data augmentation techniques, ML and DL models, and developed an equation and a GUI through which users can input process parameters and get the output. These two papers are currently **under review**.

Recently, through LinkedIn, I learned about the **MBZUAI Machine Learning Winter School 2026**, an intensive five-day program focusing on representation learning and generative AI. This opportunity strongly aligns with my research interests and my desire to increase my understanding of cutting-edge AI developments.

Beyond personal growth, I intend to bring the knowledge and experience from this program back to my university's AI research community. I aim to mentor junior students and contribute to developing local research initiatives focused on **efficient generative systems and AI for social good**.

I am confident that my background, curiosity, and commitment to learning make me a strong candidate for the **MBZUAI Machine Learning Winter School 2026**. I look forward to engaging with the brilliant minds gathered at MBZUAI and contributing to its collaborative research environment.

Thank you for considering my application.

Sincerely,
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