

LETTER OF MOTIVATION

Dear Admissions Committee,

With three years of professional experience as a Machine Learning Engineer and Full Stack Developer, I have worked extensively with intelligent systems using TensorFlow, PyTorch, and modern MLOps practices across Computer Vision and Natural Language Processing projects. These experiences strengthened my technical abilities and, more importantly, clarified that advanced research requires a strong theoretical and mathematical foundation. This realization motivates my application to the Master's degree in Data Science as a critical step toward future doctoral studies.

During my Bachelor's degree, I completed all core subjects including Linear Algebra, Analysis, Probability and Statistics, and advanced programming languages such as C#, Java, Python, and C++, along with fundamental data structures. I earned strong grades in each of these areas. These courses built a foundation that I consistently applied in industry, where mathematical modeling, statistical reasoning, and efficient algorithms played a central role in my machine learning projects.

While I am proficient in implementing modern AI systems, I now seek to gain the mathematical rigor and algorithmic depth necessary to design new models rather than rely solely on existing tools. I am particularly interested in advanced coursework covering algorithms, complexity, optimization, statistical modeling, research methodologies, and data systems, as these areas are essential for mastering theoretical analysis, proofs, and research-driven development.

My long-term goal is to become an AI Researcher and pursue a Ph.D. after completing my Master's degree. I aspire to contribute to advanced academic or industrial research and development, combining my engineering experience with scientific expertise to address complex challenges in artificial intelligence. This Master's program represents a vital transition point, ensuring that my practical background is complemented by the theoretical depth required for high-level research.

Thank you for considering my application.

Sincerely,
Irtaza Hassan