I am excited to apply for the INSAIT Summer Research Program to contribute to projects at the intersection of **fairness** in AI and machine learning's impact on real-world decision-making. As a **junior** at **NYU Abu Dhabi** majoring in **Computer Science** and **Philosophy** with a minor in **Applied Mathematics**, I am deeply interested in understanding and mitigating **biases** in AI models while also exploring how these models shape and adapt to the environments they influence. My long-term goal is to pursue graduate studies in AI governance, focusing on the societal impacts of machine learning systems.

This semester, I begin my **Computer Science capstone** project, *Understanding the Role of AI-Generated Text in Amplifying Conflicts and Disinformation*, under Professor Talal Rahwan, and my **philosophy honors thesis**, which examines how LLMs influence human reasoning and the justification of beliefs, under Professor Sarah Paul. Both projects stem from my broader interest in analyzing how AI interacts with real-world data and decision-making processes, aligning closely with INSAIT's research on AI fairness and responsible deployment.

In addition, I was particularly impressed by "Robust Learning from Untrusted Sources" by Prof. Nikola Konstantinov, as it directly addresses one of the most pressing challenges in modern AI: learning effectively from distributed and potentially unreliable data sources. As someone deeply invested in fairness in AI, I find this approach highly relevant, especially in mitigating the risks of biased or corrupted data in decision-making systems. My experience working with large language models (LLMs)—analyzing their training biases and fine-tuning them for philosophy-based reasoning—has given me a technical foundation to engage with bias mitigation strategies. At the same time, my philosophy coursework has reinforced my interest in algorithmic accountability, motivating me to explore solutions such as synthetic data generation and de-biasing techniques to create fairer AI systems.

Coming from **Nepal**, I have also seen firsthand how underrepresented communities are disproportionately affected by AI-driven biases in areas such as finance, criminal justice, and access to technology. INSAIT's interdisciplinary approach to **fairness and AI ethics** directly aligns with my research interests. I am particularly eager to explore how AI models can be trained to adapt in dynamic environments while adhering to **ethical constraints**. The opportunity to work with leading researchers on these challenges would allow me to refine my technical skills while contributing to meaningful solutions for the responsible development of AI.

Thank you for considering my application. I look forward to the possibility of discussing how my skills and interests align with INSAIT's research goals.

Best regards, Manoj Dhakal