

Upon commencing my high school education in Ethiopia, I became enthralled with the prospect of artificial intelligence (AI) transforming multiple facets of our existence. Having grown up in a developing nation, I have personal experience with the struggles that people, especially those living in rural regions, face. As a farmer, my uncle had to tackle several challenges daily. These encounters had a profound effect on me and increased my drive to learn everything there is to know about artificial intelligence. An enormous locust invasion decimated pastures and crops in February 2020, causing devastation on agricultural fields. Many farmers, including my uncle, were unprepared for this disaster, which left them feeling hopeless and with large losses. Having personally seen the terrible effects, I was greatly motivated to use technology to solve this urgent issue. It was during this difficult time that I planned to create a novel strategy that would effectively address these challenges by utilizing drones and artificial intelligence. Even though I was still completing my undergraduate degree at the time, I was unable to explore the field of artificial intelligence or create a workable plan to deal with the locust infestation because I lacked the necessary resources and assistance. However, this experience strengthened my resolve to get the AI knowledge and abilities I need to change such obstacles. Since that time, I have embarked on several AI projects focused on image processing and natural language processing, utilizing my self-driven learning and research abilities. Together with my teammate my dedication and efforts have been recognized. In 2022, I was honored to receive the Best Project Award from Bahir Dar University for our speech-to-text application in Amharic language where I practiced my teamwork and problem-solving ability. My interest in utilizing drones to protect fields from locust invasions is well aligned with Italy's cutting-edge AI strategy, particularly in the area of agricultural drones. The nation's dedication to AI in agriculture offers a fantastic chance to investigate cutting-edge agricultural protection strategies. Studying in Italy gives me the opportunity to explore this particular use of drones and AI, helping to create efficient defenses against locust infestations. I'm motivated to have a big influence on solving issues like the locust invasion using my newfound knowledge and credentials in artificial intelligence and drone technology for agricultural use. Using image processing, computer vision, and machine learning approaches, I will increase locust identification and monitoring in my AI-powered drone solution. To guarantee realistic application and work toward incorporating this technology into current pest management programs, I will cooperate with specialists and stakeholders. I also intend to investigate more general uses of AI and drones in agriculture, like precision farming,

disease detection, and crop monitoring. My goal is to empower farmers and make a positive impact on efficient and sustainable farming systems through cooperation and knowledge sharing. I am ready to overcome any hurdles that may arise from studying in Italy because of the cultural differences between us. My prior experiences learning outside of my city and embracing different cultures have given me the abilities and perspective I need to adapt well to a new cultural setting. I am confident in my capacity to handle any problems that may emerge because I am ready to take proactive steps in educating myself about Italian norms and traditions, seek support from international student services, and welcome new experiences. I am incredibly appreciative of the chance to study in Italy, where I may further my interest in AI-driven agricultural solutions, be ready to negotiate cultural differences and develop this sector. Thank you for your consideration.