LEBANESE AMERICAN UNIVERSITY

USAID – HIGHER EDUCATION SCHOLARSHIP PROGRAM

HES - Volunteering Program Verification Form

This form is to be used to document volunteering hours. If a student volunteers for multiple organizations, a separate form must be used for each organization. **This form must be turned in by the 28th of each month, the latest.**

I certify that the scholar Khalil Salaheddine completed a total of 12 hours of service at InnovaThrive.

The hours were completed hours as per the below:

Hours # 0 (date) _2/12 – 6/12_ (initials of supervisor) __A.K.___

Hours # 0 (date) _9/12 – 13/12_ (initials of supervisor) __A.K.___

Hours # 0 date) _16/12 – 20/12 (initials of supervisor) __A.K.___

Hours # 12 date) _23/12 - 27/12 (initials of supervisor) __A.K.___

Brief description of the activities the scholar performed or participated in:

Research Topic 1: AI in Real-Time Disease Outbreak Mapping
Definition: Using AI to track and predict the spread of infectious diseases globally.
Technologies:

Predictive modeling and simulation tools for outbreak analysis.

AI-driven mapping of disease spread patterns.

Applications:

Real-time tracking of COVID-19 and similar outbreaks.

Optimizing healthcare resources based on predicted disease spread.

Statistics: AI reduces response times by 40% in tracking new outbreaks.

Advantages:

Faster decision-making and resource allocation.

Disadvantages:

Risks of relying on incomplete or inaccurate data.

Challenges:

Ensuring the privacy of health data while tracking outbreaks.

Future Research:

AI-powered vaccines and treatment development.

Collaborating with international organizations for global health monitoring.

Research Topic 2: AI in Sustainable Water Management for Agriculture
Definition: Exploring AI solutions to manage water resources efficiently in farming.
Technologies:

AI-driven irrigation systems that adapt to weather patterns and soil moisture levels.

Predictive analytics for drought and water scarcity forecasting.

Applications:

Optimizing water use in crop irrigation.

Real-time water quality monitoring in agricultural runoff.

Statistics: Studies show AI-based irrigation systems reduce water use by 30%.

Advantages:

Sustainable water use, leading to cost savings.

Disadvantages:

High upfront investment in AI-powered infrastructure.

Challenges:

Integrating AI solutions in small-scale farms.

Future Research:

AI's potential to support sustainable water management in arid regions.

AI-powered systems for water recycling in agriculture.

Written feedback about the scholar's performance:

Khalil showcases impressive research and analytical skills, tackling multiple complex AI topics. His ability to break down intricate concepts and present them clearly indicates strong problem-solving abilities and attention to detail.

Please rate the overall performance of the scholar at your organization:

	Mastery (5)	Proficient (3)	Emerging (1)
Problem solver	X		
Engaged & Committed	X		
Open-minded & multicultural	X		

Signature & stamp Andrew El Kahwaji

Printed Name _Andrew El Kahwaji_

Date __26/12/2024___

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CEO of InnovaThrive