Ghaliya Wahby

+971 54 4401968 | ghaliya_wahby@gmail.com | ghaliyawahby.com
Jumeirah Park, Dubai, UAE

Education

American School of Dubai **Dubai, UAE**

APs 2024 - 2025: Precalculus, World History.

APs 2025 - 2026: Calculus BC, Microeconomics, Chemistry, Computer Science Principles.

APs 2026 - 2027: Macroeconomics, AP Statistics, Physics C, Multivariable Calculus.

Columbia University Pre-College Program **June-July 2025**

Introduction to Economics, Business and Finance

Culver Summer School **June-Aug 2022**

Awards and Honors

- Award for Best Prototype, Dubai Science Fair **2026**
- AP Scholar with Distinction Award **2026**
- Award for Best Interdisciplinary Project, Dubai Science Fair **2025**
- Mu Alpha Theta (Math Honor Society) **2025-2027**
- National Honor Society **2025-2027**
- Global Seal of Biliteracy - Functional Fluency in Arabic **2024-2025**
- Tri-M Music Honor Society, National Association for Music Education (NAfME) **2023-2027**
- Coaches Award, Junior Varsity Volleyball - recognized for leadership, mentorship, and positive team impact **2024**

Internships & Professional Experience

Summer Intern - EVA Group, Egypt **July 2026**

- Completed a four-week rotation across EVA Group's factory and corporate offices, gaining hands-on exposure to manufacturing, production management, business operations, and cross-department coordination.
- Developed practical understanding of process optimization, resource allocation, operational efficiency, and quality standards, strengthening her interest in industrial engineering and large-scale operational problem-solving.

Student Intern - Alliad (Agility Group Company) **June-July 2025**

- Led a team of four interns on a sustainability-focused project promoting environmentally responsible practices; presented the final work to the CEO and senior management.

Student Intern - Morgan Stanley, Step In, Step Up: Women in STEM Program, Dubai **Feb 2025**

- Participated in the $1 Million Case Study Challenge, applying quantitative reasoning and financial analysis to investment decisions.

Student Intern - Dell Technologies **Dec 2024**

- Shadowed the Partner Marketing Manager, attended strategic meetings, and supported preparation for the Dell Technologies Forum Dubai through exposure to negotiations, proposals, contracts, partner marketing, and cross-functional coordination.

Project & Research Experience

Founder & Developer - AlziMate (alzimate.co) **2026-Present**

- Designed a multilingual, person-first application that helps people living with Alzheimer's stay connected with familiar people, memories, routines, and personal identity.
- Built personalized memory profiles containing photographs, relationships, life events, voice messages, music, videos, favourite activities, routines, preferences, and family stories.
- Created separate experiences for individuals, families, caregivers, and care organisations, with simplified elderly-friendly navigation, large controls, role-based access, and secure account features.

Founder & Developer - Calculyt (calculyt.net) **2025**

Free Mathematics Learning Platform

- Created a student-friendly mathematics platform for Grades 2-10 offering free lessons, tutorials, videos, notes, worksheets, activities, and guided practice.
- Organized learning across numbers and operations, algebra, geometry, and problem-solving, with login-based progress support and downloadable learning resources.

Student Researcher - Dance & Therapeutic Well-being **2025**

Interdisciplinary Research Project

- Explored how structured dance and movement-based therapeutic activities can support emotional expression, confidence, social connection, and overall well-being.
- Connected research in creative arts and wellness with practical activity design, drawing on long-term dance experience across ballet, tap, jazz, lyrical, hip hop, and musical theatre.

Researcher & Developer - Smart Water Quality Monitoring System **2026**

ESP32 + Blynk IoT Environmental Monitoring

- Developed a low-cost IoT system that measures Total Dissolved Solids (TDS), turbidity, and water temperature in real time using an ESP32, TDS sensor, turbidity sensor, and DS18B20.
- Transmitted sensor readings over Wi-Fi to a Blynk mobile/cloud dashboard and classified water conditions using sensor thresholds, demonstrating portable real-time environmental monitoring.

Industrial Engineering Project - Streamline Metrics **2026**

- Developed a solar-powered conveyor prototype combining automated product counting, camera-based visual inspection, processing-time measurement, and performance tracking.
- Used Raspberry Pi computer vision to evaluate products by predefined characteristics such as colour, shape, and size, while maintaining total production counts and operational metrics.
- Implemented AI-based safety monitoring that detects a person near the conveyor and automatically stops the system, integrating renewable energy, automation, quality control, and workplace safety.

Extracurricular and Leadership Activities

- Student Government Association (SGA) - Grade-Level President: Serves as a link between the student body and administrators and helps plan school-wide events and assemblies.
- National Honor Society - Vice President/Treasurer: Manages society funds and coordinates with the school finance team for events throughout the year.
- Chair, ASDMUN General Assembly (2026) & President, ASDMUN World Bank (2027): Chaired General Assembly debates and led the World Bank committee on international economic issues.
- Member, The Hague International Model United Nations: Participated in advanced debate on global issues and collaborated with delegates from diverse international backgrounds.
- Dance Coach: Coached the middle school dance team, taught choreography, and developed confidence, teamwork, and performance readiness.
- Captain, Badminton Team: Promoted to varsity a year early and served as captain for two years as one of the youngest team members.
- Dance: 12 consecutive years of ballet with Royal Academy of Dance certifications; advanced training in tap, jazz, lyrical, hip hop, and musical theatre; competed locally and internationally, including IFDPA Disney Paris and World Dance competitions in Orlando.
- Member, Community Choir: Performed in a multi-generational school choir alongside students, teachers, and parents.
- Member, SEENAH: Supported annual donation drives, community appreciation events, planning, setup, and outreach.

Community Service

Nepal Community Service Expedition

- Collaborated with residents of a remote mountain village to redirect a river threatening a sacred religious site and built a natural hillside staircase to improve safe river access as part of a sustainable, community-led infrastructure effort.

Calculyt - Founder

- Provides free mathematics learning resources including worksheets, video lessons, notes, activities, and practice materials to improve access to quality mathematics education.

Languages & Technical Skills

Languages: Arabic (Native), English (Fluent), French (Intermediate)

Technical: JavaScript, PHP, HTML/CSS, SQL/MySQL, ESP32, Raspberry Pi, Blynk IoT