George Salib

Cairo, Egypt

GitHub   —   ORCID   —   Email   —   Blog

Publications & Projects

A Comparison: Galactic Formation & Evolution through Semi-Analytic and Numerical Hydrodynamic Frameworks in the Context of Extragalactic Astronomy, Youth Science Journal (under the Egyptian Ministry of Education)   Oct. 2023
Co-authored **an 11-page review paper**; ranked **2nd best out of 48** submissions; **published** in the journal's tenth issue.

N-Body System Simulation Framework   July 2024
A Lagrangian framework to simulate Newtonian binary and multi-star systems, **validated** with real data & **produced accurate results**.
Tech: Python, matplotlib.pyplot, matplotlib.animation, numpy, argparse

Multithreaded HTTP Web Server   November 2025
A **multithreaded** web server capable of serving static content. Handles standard GET requests & returns proper error responses using a thread pool executor.
Tech: Python, socket, concurrent.futures, os, sys

Experiences

Lead Organizer — Scrapyard Giza, sponsored by the Hack Foundation   Mar. 2025
Organized Egypt's largest high school hackathon with **45 projects** and **150 attendees**; managed part of logistics, finances, and day-of operation; **raised over \$2,000+**; event attracted **475+ signups**, ranking **#1 among 100+ cities** globally

Lead Organizer, Logistical & Financial Administrator — Counterspell Giza, sponsored by ChuckleFish Limited & Swish Swoosh   Nov. 2024
Organized a 12-hour hackathon with **30+ projects** and **100 attendees**; **fundraised \$1,500** and prizes from sponsors; managed day-of operation budgeting, logistics, and financials including venue, t-shirts, and catering; negotiated a 5% discount with food supplier and increased budget with partner; event attracted **280+ sign-ups** (**#1 of 100+ cities** globally)

Vice President — Hack Club, an international non-profit, STEM Egypt Branch
          Jan. 2024 – Feb. 2025
Oversaw 9 mentors, 90+ sessions, and 70+ members; organized a 4-week boot camp, consisting of **5 CS tracks and 125+ mentees**, and handpicked its mentors; supervised a CP competition with **225+ contestants from 20 countries**

Cyber Security Mentor — STEM Egypt Hack Club   Jan. 2024 – Feb. 2025
Taught 20 students in **14+ weekly sessions** (2024); **Mentored 4 students** in **an intensive four-week boot camp** (2023); prepared curriculum and tasks, and evaluated submissions during both positions

Skills

Programming: Python (Proficient); **C++** (Competent); **Bash** (Competent); **MySQL** (Basic Familiarity); LaTeX (Intermediate); HTML (Basic Familiarity); CSS (Basic Familiarity)

Used Tools: Git, **Arduino**, **Raspberry Pi**, **Linux** (Ubuntu, RPiOS & Kali), Blender, Microsoft Office Suite

Languages: English (Fluent), **Arabic** (Native), **French** (Limited Working Proficiency)

Certifications

DET, CEFR:C1 — 145/160 (150 Literacy, 150 Comprehension, 140 Production, 135 Conversation) — Jan. 2025

ACT, 34 Composite — 36 Science, 34 English, 33 Maths, 32 Reading — Sept. 2024

Education

STEM High School for Boys, 6th of October — Giza, Egypt
Advanced Coursework: 4.0 GPA (G10, G11, G12); Mathematics (Adjacent to AP), Mechanics (Adjacent to AP), Chemistry (Adjacent to AP), Physics (Adjacent to AP)

Hudson Valley Community College (Virtual) — NY, U.S.
Course Identifier: Introduction to Astronomy (PHYS-105-623)
Coursework: Earned 3 college credits (4.0 GPA); engaged in astronomical calculations and simulations in six labs, and collaborative discussions

University of Helsinki (Virtual) — Helsinki, Finland
Course Identifier: Elements of AI (An Introduction to AI)
Coursework: Earned 2 ECTS credits; explored core concepts in artificial intelligence, including machine learning, neural networks, GANs, and societal implications

Saint Cloud State University (Virtual) — MN, U.S.
Course Identifier: Academic English and Composition (EAP 195-55)
Coursework: Earned 1 college credit (4.0 GPA); developed my unique writing style and honed my academic writing; had discussions and debates with peers from around the globe

Honors & Scholarships

International Astronomy and Astrophysics Competition — Top 3% of ~5040 competitors, Gold Honor; Top 20% of 4500+, Silver Honor — May 2024 & 2023

STEM Entrance Exam — Top 0.6% of the 20,000 students; who scored 98%+ in Grade 9 — Aug. 2022

Immerse Education Essay Competition — Top 7–8% of ~6000 entrants, awarded ~$1000 scholarship for a 550-word research essay on stellar evolution — Jan. 2024

PHYS-105-623 (HVCC) — Received ~$630 merit scholarship to take a college-level physics course at Hudson Valley Community College — July 2024

EducationUSA Connects+ Program — Received ~$900 scholarship funded by the U.S. Department of State to attend a summer course at St. Cloud State University — July 2023