

Youssef Sharmoukh

Behira, Egypt | youssefemadharby@gmail.com | +20 150 733 0056

linkedin.com/in/youssef-emad-71569428b | github.com/Youssef389

Education

Applied Technology School for Nuclear Energy El-Dabaa, Egypt

Sep 2021 – Jun 2026

- Dept. of Nuclear Electronics
- GPA: 97.755/100
- **Coursework:** Nuclear Engineering, Linear Algebra, Multivariable Calculus, Radiation Protection, Reactor Theory & Physics, Computational Nuclear Instrumentation, Logic Design, Robotics, Electric Circuits, and Radiological Physics

Experience

InfoTech-X

Jan 2024 – Present

Hybrid / Community-Based

- Founder & Lead Instructor
- Delivered **50+ coding and mathematics instructional sessions**, designing structured learning paths for students across diverse academic backgrounds.
- Conducted **outreach programs in 5 schools and 8 churches**, expanding community engagement and improving access to STEM education.
- Reached a network of **2,800+ community members**, coordinating events, workshops, and local initiatives to promote digital literacy.
- Led and organized a team of **22 active volunteers**, managing operations, training workflows, and program logistics.
- Secured **12,000 EGP in community-driven fundraising**, enabling program expansion and resource development.
- Collaborated with **EducationUSA Alexandria** to deliver guidance sessions, mentorship, and educational support for underserved students.
- Currently developing the **latest version of a fully AI-powered educational platform** aimed primarily at delivering advanced STEM education, while also assisting learners in preparing effectively for future challenges in coding, mathematics, and problem-solving through personalized learning paths and intelligent tutoring tools.

Code4Empower

August 2024 – Present

Remote / International

- Founder & CEO
- Founded and grew a global volunteer network of **60+ members** across **6 countries**, fostering a culture of collaboration and impact.
- Led and delivered **10+ software development projects** providing free, tailored solutions to non-profit organizations (NPOs), improving their operations and outreach.
- Created opportunities for students and volunteers to gain **real-world software development experience**, bridging academic learning with practical application.

Pioneer Academics

Feb 2025–Aug 2025

Jenkintown, PA, United States

- Research Intern in LLMs
- Conducted an **18-page research paper** on Large Language Models (LLMs) under University of Michigan prof. Dhillon.
- Introduced a novel example selection method for in-context learning, achieving **State-Of-The-Art** performance.
- Co-hosted a professional session alongside Pioneer Academics alumni, sharing insights and fostering community engagement.

- Shared research experience and collaborated with a network of **83 research interns**, facilitating knowledge exchange and mentorship.
- Completed the INST 099 Research Course with 4 college credits accredited by Oberlin College

ATSNEE Tech Innovation Council

Jan 2024–Present

El-Dabaa, Matrouh, Egypt

- Co-Founder, Vice President & Instructor
- Co-Founded and Co-directed a student-led council advancing technological innovation and research.
- Coordinated two cohorts across 24 lectures with a 95% attendance rate, mentoring 20+ peers in applied STEM projects.
- Delivered 12 sessions and facilitated collaborative problem-solving in coding and engineering.
- Co-Organized informational workshops on ISEF participation and competitive programming opportunities.

Competitive College Club (CCC)

May 2024 – Present

Alexandria, Egypt

- 2024, 2025 Cohort Member
- Selected for the prestigious CCC advising program supporting high-achieving students in U.S. college admissions.
- Participated in the Standardized Testing Sub-Club, engaging in mock exams, and academic workshops.
- Collaborated with motivated peers to foster academic growth within a dynamic and supportive learning environment.
- Explored U.S. higher education systems, scholarship opportunities, and personalized college application strategies through CCC's holistic mentorship approach.

El3ab

August 2024 – Present

Remote

- Part-Time Full Stack Developer
- Designed and implemented key software features, enhancing user experience and interface usability.
- Debugged, optimized, and maintained application performance across front-end and back-end components.
- Led a small team of developers, coordinating development tasks and ensuring timely delivery of mobile app updates.

Cross The Sky Limit

Feb 2025 – Present

Remote

- President – Egypt Branch
- Informed students about scholarships and funding opportunities, expanding access to educational resources.
- Managed approximately **\$5,000** in funds to support low-income students, facilitating an **18% discount** on SAT registration fees.
- Assisted over **246 students** in navigating financial aid and scholarship processes, improving their chances for academic success.

Creative Code Series

Dec 2024 – Present

Behira, Egypt

- Author
- Authored a **100-page comprehensive guide** on front-end technologies, covering HTML and CSS fundamentals.
- Achieved over **1,000 downloads** and received **100+ positive reviews**, demonstrating strong community engagement and impact.

Online Freelancer , Online

Nov 2022 – Present

- Self-Employed
- Delivered high-quality programming and development services to clients across the Arab world, managing a range of academic and professional projects with a focus on exceptional quality.
- Provided comprehensive support for complex projects, including graduation and capstone projects, demonstrating a commitment to excellence and effective project management.

- Developed and maintained web and software applications.
- Collaborated closely with clients to understand their requirements, deliver tailored solutions, and ensure timely project completion while effectively managing multiple projects concurrently, showcasing strong organizational and problem-solving skills.

Projects

Autonomous Drone for Radiation Monitoring

- Built an AI-powered drone for automated radiation workplace monitoring, utilizing monocular depth estimation for navigation. Designed deep learning-based vision-based path planning to avoid LiDAR interference from gamma radiation.

Smart Prompting

- Developed a novel example selection strategy with built-in analysis and prediction for diverse NLP tasks, achieving **classification accuracy over 97.8%** and significantly improving model performance through smart prompting techniques.

Plasma Knights

- Developed a machine learning framework to predict and analyze magnetic reconnection phenomena in space plasmas, achieving 90% predictive accuracy through coordinate and LMN based analytical tests that enhance physical interpretation.

School Security & Attendance systems

- Upgraded school security and attendance system infrastructure, reducing total costs by **40%**; served **273 students**; produced **273 IDs** with an average of **700 scans per day**.

InfoTech-X

- AI-powered educational platform delivering personalized STEM learning experiences and intelligent tutoring to support students' skill development and preparation for advanced math & programming challenges.

Code4Empower

- Developed and managed a platform featuring a built-in web builder that allows clients to self-build simple projects, while offering a custom-built request form for complex projects handled directly by the development team.

Certifications/Awards

ISEF (International Science and Engineering Fair): Achieved Grand Award #1 out of 2500 participants at Biboletica Alexandrina Science and Engineering Fair 2025, earning a Gold Medal in Computer Systems, and representing Egypt internationally.

NASA Space Apps Challenge: Ranked #1 out of 800 competitors as Global Nominee at NASA Space Apps Alexandria 2023 and placed in the top 4.5% out of 12,500 international projects at the NASA International Space Apps 2023.

ECPC Teens (Egyptian Collegiate Programming Contest): Ranked in the top 5% among 1400 teams at the 2024 competition.

Purple Comet International Math Contest'23: Ranked in the top 10% internationally among participating teams.

IEEE Innovation Competition 2024: Finalist among 500 international projects.

International Telecom Conference (ITC Egypt)'25: Finalist among 1400 projects, recognized for innovation in robotics and embedded systems.

International Science and Engineering Innovation Competition (ISEIC Egypt)'23: Top 0.9% among 935 projects nationally.

Skills & Technologies

Software Development: JavaScript, C++ , Python, Sass, Bootstrap, ReactJS, NextJS, Git, Framer Motion, Node.js, Prisma, Firebase, MySQL, Git

Artificial Intelligence : Pandas, PyTorch, Transformers, NumPy, scikit-learn (SKLearn), Evaluate, Hugging Face

Embedded Systems: Arduino, ESP, Raspberry pi, microprocessors & microcontrollers, PCB & Circuit design

Design & Productivity: LaTeX, Excel, PowerPoint, Canva, Slack, Notion.

Courses

- Machine Learning (DeepLearning.AI, Coursera)
- Complete Data Science, Machine Learning, DL, NLP Bootcamp (Krish Naik, Udemy)
- Mastering Data Structures & Algorithms using C and C++ (Abdul Bari, Udemy)
- The Complete Full-Stack Web Development Bootcamp (Dr. Angela Yu, Udemy)
- Intro to embedded systems (Arafa Microsystems, Youtube)