

# Sadek M. Elsayed

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## EDUCATION

### STEM high school for boys - 6th of October ☑

High school

- Egypt Top Public High School, GPA 4.0 (unweighted); 33 ACT (36 M; 36 S; 31 E; 28 R)

09/2020 – present

Giza, Egypt

## PROFESSIONAL EXPERIENCE

### STEM Egypt | Hack Club

Member

- attended 15+ sessions on python and competitive coding
- attended 5+ seminars on various Computer Science fields

04/2021 – 11/2021

Assistant

- organized the workflow of sessions by recording absence, presence, and etc.

07/2021 – 11/2021

Competitive Programming Mentor (4 hrs / wk)

- Gave 15 sessions (13 online + 2 offline); recorded; 5 articles; see content here ☑ .
- Organized an online CodeForces contest with 5 Participants and wrote 3 original problems.

11/2021 – present

### School's English Club

Leader of Writing Branch (3 hrs / wk)

- Formulated a curriculum of 10 sessions on principles of writing and grammar.
- Administrated the workflow of 10 mentors while tutoring 40 students in the curriculum with a total of 60+ sessions.
- Closely Instructed a group of 4 mentees and gave 9 sessions. Recordings here ☑ .

04/2022 – 09/2022

### School's German Club

German Mentor (3 hrs/wk)

- Arranged a weekly meeting for a class of 20 students to explore the German curriculum.
- Assigned tasks, revised them, and offered support for the students throughout the week.

10/2021 – 03/2022

### School's CS club

Algorithms Mentor (2hrs/week)

- formulated a curriculum of 5 sessions on various types of algorithms & data structures.
- ended up with having 5+ ECPC and IIOT competitions finalists out of 15+ mentees.

04/2022 – present

### School's Capstone Directors

Capstone Project Assistant

- Helped 10+ groups with their projects.
- Led a mock exhibition for 5 groups.
- did portfolio & poster weekly revisions.

10/2021 – present

### Yale University - Yale Young Global Scholars

Participant

- Attended 5 lectures, 3 seminars, and several discussion sessions.
- Developed a simulation project with a team of 4 international students.

07/2022 – 07/2022

### Experiment Digital - Youth Leadership & Community Service, The Department of State ☑

Participant

took 8 modules on community service and gained a certificate of distinguished achievement.

06/2021 – 08/2021

Ambassador

spread knowledge about the program all over the middle east.

Peer Mentor

supervised 15+ mentees while learning the same 8 community service modules; oversaw discussion & chats.

## PROJECTS

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### Investigating the Media Favorability of U.S presidents [↗](#)

12/2021 – 02/2022

Codebozu | Program to teach CS, led by Cornell's CS students

- Coded the project using various Python libraries with a group of 5 international students.
- Gathering data from various media websites, the project analyzes them to investigate the media favorability of U.S. presidents.

### Sum of Rows of Pascalized Triangle [↗](#)

06/2022 – 09/2022

Pioneer Academics Program with Oberlin College

- Investigated various generalizations of the famous pascal triangle.
- Proved 4 conjectures for Pascalized Triangles; formulated 8 formulas; proposed a conjecture.
- Posted 2 entries on the OEIS: A356692 [↗](#) & A228074 [↗](#).

### Gentian Blossom

02/2022 – 05/2022

School's Capstone Project

- Built an alternative feedback control system to adjust the production of Gentian Violet, aided by the use of a solar panel.
- Coded a whole Arduino system that utilizes the workflow of a sensor and a pump.
- Presented the project on front of a group of university professors and got a grade of "A+".

## INTERESTS

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**Competitive Programming** [↗](#) (Ranked pupil on Codeforces) | **Coding Projects** [↗](#) (Look at my various github repositories.)

## AWARDS

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### Egyptian Olympiad in Informatics (EOI) top 15th percentile.

15/09/2022

- The top individual informatics contest for Egyptian School Students.
- Attained that position after a 2-day offline contest and a 2-day online contest.

### First Place winner at the Nasa Space Apps Giza Location & a Global Nominee

20/09/2021

- Developed an App that gives representative graphs for data about sun from the NASA API.

### 2nd place at the Moonshot Pirates #beapirate challenge out of 65 international teams [↗](#)

01/07/2021

- proposed a smart, accessible solution for the problems of people with deaf-blindness.
- was in a team with other 5 internationals from 4 other countries.

### STEM schools merit based scholarship top 1 percentile out of 18k+ applicants

07/10/2020

- passed a science, math, technology, and IQ test on the national scale.

### Egyptian Collegiate Programming Contest for Teens top 12th percentile out of 175+ teams

26/08/2022

- Passed an online qualification round & two separate offline rounds.
- Worked with a partner to solve problems on various algorithms & data structures.

## LANGUAGES

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### English

135 Duolingo

### Arabic

Native

### German

A1 from school