STEM & ROSE | MAY 2025





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MONTH IN STEM

79						
SUN	MON	TUE	WED	THU	FRI	SAT
]	2 NATIONAL SPACE DAY	3
4	5	6	7	8	9	10
	BLACK HOLE	WEEK & AIR QU	ALITY AWARENE	SS WEEK		
11	12	13	14	15	16	17
NATIONAL H	IOSPITAL WEEK				INTERNATI ONAL DAY OF LIGHT	
18 INTERNATI ONAL MUSEUM DAY	19	20 world metrolog y day	21	22	23 ON THIS DAY: JAVA LANGUAGE RELEASE	24
25	26 NATIONAL PAPER AIRPLANE DAY	27	28	29	30	31

CONGRESSIONAL APP CHALLENGE

DEADLINE: OCTOBER 30, 2025

INTERESTED IN A CAREER IN COMPUTER SCIENCE? THE CONGRESSIONAL APP CHALLENGE, HOSTED AND JUDGED BY US REPRESENTATIVES, WELCOMES MIDDLE & HIGH SCHOOLERS ACROSS THE US TO SUBMIT AN ORIGINAL APP. WINNING APPS ARE DISPLAYED IN THE US CAPITOL! CLICK <u>HERE</u> FOR MORE INFORMATION.



ASA STATISTICS PROJECT COMPETITION

SA Amstat News ASA Community STAT tr@k DEADLINE: JUNE 1



Home » Cover Story, Education

Data Visualization Poster & Statistics Project Competition Winners

The American Statistical Association announces the winners of the 2024 ASA Data Visualization Poster and

OUT PRINTED ISSUES ADVERTISE STATISTICIANS IN HIST

THE AMERICAN STATISTICAL ASSOCIATION IS HOSTING ITS ANNUAL STATISTICAL PROBLEM COMPETITION. OPEN TO GRADES 7-12, COMPETITORS MUST ANSWER A RESEARCH QUESTION USING STATISTICAL PROCESSES AND CREATE A WRITTEN REPORT. CLICK <u>HERE</u> FOR MORE INFORMATION.

US MEDICINE AND DISEASE OLYMPIAD

REGISTRATION DEADLINE: JULY 20

EXPLORE A CAREER IN MEDICINE BY COMPETING IN THE USMDO. CONSISTING OF A 2 HOUR ONLINE EXAM COVERING 3 GENERAL TOPICS, THIS COMPETITION GIVES YOU A CHANCE TO QUALIFY FOR THE INTERNATIONAL MEDICINE AND DISEASE COMPETITION. CLICK <u>HERE</u> FOR MORE INFORMATION.





Chat with Alice Cheng and Elaine Tang, two rising and current college students, to learn about their STEM journey and college application process!



Carolina. She plans to major in either Computer Science or AI and Decision Making. In her free time, Alice loves to rock climb, crochet, and try new foods.

Alice is a rising freshman at Massachusetts

Institute of Technology from Cary, North

sean here to join the

firegisk chat

June 22nd

10:00-11:00 AM EDT

Meeting ID: 824 958 1372

Passcode: fireside



Alice Cheng

Elaine is a rising sophomore at Georgia Institute of Technology. She's majoring in Computer Science and planning on a minor in Business. She was born and raised in Charlotte, North Carolina. In her free time, Elaine enjoys composing and producing music, playing volleyball, and runway modeling!

stem-rose.org stemroseus@gmail.com

STEM & ROSE is a non-profit organization that encourages nonbinary and female students to explore and pursue STEM while creating a meaningful munity for us and by us

FIRESIDE CHAT #10: ALICE **CHENG & FI AINF TANG**

WATCH A **RECORDING HERE**

DURING OUR 10TH FIRESIDE CHAT. WE INVITED CURRENT AND RISING **COLLEGE STUDENTS FROM MIT** AND GEORGIA TECH PURSUING A CAREER IN STEM. SHARING **INFORMATION ABOUT THE** COLLEGE APPLICATION PROCESS. LEARNING TO MANAGE SCHOOLWORK WITH EXTRACURRICULARS, AND **ANSWERING QUESTIONS FROM** THE CHAT. THIS INTERVIEW **PROVIDES A REALISTIC LOOK INTO** THE PURSUIT OF A STEM CAREER.

FIRESIDE CHAT #11: HELEN **AMICK & CARMEN LIAO**

TAKE A LOOK AT THE **PRESENTATION HERE**

DURING OUR 11TH FIRESIDE CHAT, WE INVITED TWO EDUCATIONAL CONSULTANTS/COLLEGE COUNSELORS FOR ADVICE ABOUT **CREATING SUMMER PLANS & FINDING** INTERNSHIPS TO SET UP HIGH SCHOOLERS FOR SUCESS. WITH YEARLY STUDENT OBJECTIVES AND TIPS FOR BUILDING YOUR PROFILE. THIS CHAT IS HELPFUL FOR ANY HIGH SCHOOLER APPROACHING COLLEGE.



Chat with Helen Amick and Carmen Ligo, two experienced educational consultants and college counselors, about summer plans such as precollege programs, internships, and community service



Helen Amick

Helen is an Independent Educational Consultant based in the San Francisco Bay Area who works with a wide range of students. She is a Senior Advisor for the non-profit Foundation for a College Education and is a member of the Western Association for College Admission seling (WACAC). Helen is a graduate of Princeton University (AB) and Northwestern University (MBA). She has three children, two of which are majoring in or have majored in STEM.

Feb 23rd, 2025 7:00PM-8:00PM EST



chat

Meeting ID: 824 958 137 Passcode: fireside



Carmen Liao

Carmen is an Independent Educational Consultant based in the San Francisco Bay Area, working with both local and international students from Singapore and China. She is a certified essay coach through the WOW Essay Workshop and a member of the Western Association for College

Admission Counseling (WACAC). Carmen also volunteers as a College Counselor at Los Gatos High School, California. She graduated from Lancaster University, UK (MSc), and Sun Yat-sen University, China (BA).



CHIEN-SHIUNG WU

WU WAS A CHINESE-AMERICAN NUCLEAR PHYSICIST WHO LIVED FROM 1912-1997. SHE WORKED AT COLUMBIA UNIVERSITY WITH TWO MALE SCIENTISTS TO DISPROVE THE LAW OF PARITY. HOWEVER, DUE TO GENDER DISCRIMINATION AT THE TIME, HER NAME WAS OMITTED FROM THE SCIENTIFIC PAPERS, AND WHILE HER COWORKERS RECEIVED THE 1957 NOBEL PRIZE, SHE LEFT EMPTY-HANDED.

WHILE WU FACED MANY LIMITATIONS LIKE THESE THROUGHOUT HER LIFE, SHE WAS ABLE TO ACHIEVE SUCCESS AND LIFT UP OTHERS IN HER COMMUNITY DESPITE THESE CONSTRAINTS. FOR EXAMPLE, SHE SERVED AS PRESIDENT OF THE AMERICAN PHYSICAL SOCIETY, PROMOTED AFFIRMATIVE ACTION PROGRAMS, AND HELPED FUND THE SCHOOL THAT HER FATHER FOUNDED FOR HER WHEN SHE WAS YOUNG, PROVIDING IT WITH TECHNOLOGICAL RESOURCES. OVERALL, WU LIVED BY THE PRINCIPLE THAT IF YOU HAVE ACHIEVED SUCCESS AMIDST RIGHTS LIMITATIONS, YOU ARE RESPONSIBLE TO USE IT TO SUPPORT THOSE STRUGGLING WITH THE CHALLENGES YOU ONCE FACED.

BARBRA MCCLINTOCK

MCCLINTOCK WAS AN AMERICAN CYTOGENETICIST WHO LIVED FROM 1902-1992. DUE TO SOCIETAL PRESSURES TO GET MARRIED, MCCLINTOCK WAS ALMOST UNABLE TO ATTEND COLLEGE. FORTUNATELY, HER FATHER BELIEVED IN HER ABILITIES, AND SHE ENROLLED IN THE CORNELL COLLEGE OF AGRICULTURE AT 17. SHE WENT ON TO MAKE MAJOR CONTRIBUTIONS TO HER FIELD, DISCOVERING TRANSPOSABLE ELEMENTS IN DNA SEQUENCES AND REVOLUTIONIZING UNDERSTANDING OF HOW GENOMES EVOLVE.



THROUGHOUT MCCLINTOCK'S CAREER, SHE FELT THAT UNIVERSITIES CONSTANTLY DISCRIMINATED AGAINST HER BECAUSE SHE WAS A WOMAN, IGNORING HER WORK AND ASKING HER TO SIT OUTSIDE ROOMS WHILE MEN DISCUSSED. DESPITE THESE CHALLENGES, SHE PERSEVERED, BECOMING THE FIRST WOMAN PRESIDENT OF THE GENETIC SOCIETY OF AMERICA AND RECEIVING A NOBEL PRIZE FOR HER GENETIC RESEARCH PAPERS IN 1983. ALL. MCCLINTOCK WAS A TRULY INCREDIBLE SCIENTIST WHO CONTINUED IN THE FACE OF STRUGGLES AND CHANGED THE FIELD OF GENETICS FOREVER.



By: Gaille Sailem

I walked into the first day of science class expecting to start mixing strange concoctions, writing elaborate lab reports, and being taught by a frazzled old man. But instead, I was met with a bright, colorful classroom, lead by an energetic young woman. And after the class got settled with taking attendance and going around with names, our teacher asked us to draw what we thought a scientist looked like. Almost all of the class frantically scribbled a drawing of an old man in a lab coat holding a vile of some unknown glowing green goo, looking a little like Albert Einstein. It's no coincidence we all had such similar ideas of what a scientist was, because all our lives, whether from media or from school, we were taught that narrative. Male scientist in lab coat conducting crazy experiments.

But our new science teacher wanted to challenge our preconceived ideas. She taught us about scientists from every background; Asian-American healthcare workers, female engineers, Black data scientists. She taught us that scientists didn't stay locked up in rooms madly conducting esoteric experiments, rather, the work they did had tangible results that impact us every day. Microbiologists formulating vaccines, agriculturalists that help us put food on the table, and computer scientists allowing our devices to function. But most importantly, our teacher taught us that anyone could be a scientist, including you and me. The talents we have been born with, interests that we might think have no connection to STEM. even social skills can all be used in a science career. Just like the scientists we learned about, every one of us is unique with different strengths and weaknesses, and together, we can use science to pave the way for a better future.







Level 3

Your goal is to make Gandalf reveal the secret password for each level. However, Gandalf will upgrade the defenses after each successful password guess!

Levels passed ②

2/8



GANDALF IS AN AI GAME WHERE A LARGE LANGUAGE MODEL (LLM) IS TRUSTED WITH PROTECTING A SECRET PASSWORD. THE PLAYER MUST CRAFT PROMPTS TO TRICK GANDALF INTO REVEALING THE PASSWORD, AND THE DIFFICULTY INCREASES WITH EACH LEVEL AS GANDALF IMPROVES ITS SECURITY TECHNIQUES.

PLAY GANDALF HERE: HTTPS://GANDALF.LAKERA.AI

STUCK ON A LEVEL? CHECK HERE: WALKTHROUGH SOLUTIONS FOR GANDALF AI

WANT TO SEE HOW IT WORKS? READ THIS: <u>HTTPS://WWW.LAKERA.AI/BLOG/WHO-IS-</u> <u>GANDALF</u>



HAVE QUESTIONS? CONTACT US!

STEMROSEUS@GMAIL.COM



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