

TRISHA MEHTA

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EDUCATION

University of Illinois Urbana-Champaign
Physics Major | Chemistry Major | Music Theory Minor

August 2025 – May 2029

Dubai Gem Private School
IGCSE | International Advanced Subsidiary (AS-Levels) | International Advanced Level (A-Levels)

September 2009 – June 2025

EXPERIENCE

Research Shadow, *Lumiere* October 2024 – January 2025

- Investigated how microscopic lattice vibrations in WTe₂ influence its macroscopic properties in collaboration with a Stanford postdoctoral researcher.
- Drafted research outlines and proposals to guide experimental direction.
- Analyzed experimental data with Python, applying data-processing and visualization techniques.

Research Scholar, *GirlsInResearch* July 2024 – August 2024

- Engaged in a research scholarship to draft a research proposal focused on investigating the effects of microgravity on the functioning of the inner ear.
- Presented my work to a panel of judges that included the CEO of GirlsInResearch, and Harvard, MIT, and Cambridge alumni.

Research Intern, *Oxford Scholastica Academy* August 2023

- Conducted research on the applications, advantages, limitations, and strategies of using Artificial Intelligence (AI) for the diagnosis and treatment of coronary heart disease.
- Contributed to a co-authored research paper, published on OxJournal, specifically investigating the early detection of Atrioventricular Septal Defect (AVSD) using Artificial Intelligence.

Coding Fellow, *CodeBozu* January 2022

- Examined the ethics of web scraping with a focus on American figures.
- Developed heatmaps for politician favorability using Python.
- Acquired skills in using library routines and third-party packages such as VADER Sentiment Analysis, Pandas, and BeautifulSoup4.

PROJECTS AND LEADERSHIP

Speaker, *TEDx* January 2025

- Delivered a speech, “The Question that Changed Everything”, at a TEDx event in Dubai under the theme ‘Learning to Unlearn’ (available on [YouTube](#)).
- Integrated chemistry and physics concepts to build a scientific narrative that connected to personal stories, exploring my life and its swanky tales.

Head Girl, *Dubai Gem Private School* September 2024 – June 2025

- Led the student council of DGPS across all year groups, serving as the primary liaison with the parent council and representing the school through speeches at major events.
- Oversaw four key teams- Well-being, Student Mentorship, Events and Activities, and Innovation and Sustainability- to plan and execute schoolwide initiatives.

Deputy Secretary General, *DGPS Model United Nations* November 2023 – January 2024

- Planned and executed a three-day conference along with preparing for AS Level examinations.
- Navigated and resolved conference challenges during the conference, resulting in a highly enjoyable and educational experience for all participants and organisers.

- Developed practical skills in negotiation and people management under the mentorship of the school accounts professor.

Founder, *Lab Rats Club*

September 2023 – January 2024

- Founded the largest science club, Lab Rats, at Dubai Gem Private School, growing membership to 60+ students aged 12-16.
- Conducted weekly sessions throughout the academic year, delivering engaging, hands-on science experiences.
- Created a unique curriculum introducing various engineering streams through interactive lessons and experiments.
- Managed the procurement and budgeting of the reagents and laboratory apparatus.

Scholar, *OxBright*

July 2023

- Completed a one-week intensive online course mentored by Oxford and Cambridge students, exploring personality, motivation, interpersonal relationships, cognition, and psychological disorders.
- Studied emerging developments in the field, including research on the science of happiness.
- Practiced critical analysis through preparing and delivering reports on assigned topics.

Head Organizer, *TEDx*

June 2022 – November 2022

- Secured an official license from TEDx to host TEDxYouth@DGPS, a 100-attendee event at Dubai Gem Private School.
- Led a core team and coordinated a planning committee of 30+ members over a six-month period.
- Built and maintained relationships with international speakers and performers, significantly enriching the event's content and diversity.

Lead Organizer, *Dubai Gem Private School Literature Week*

February 2022

- Organized and hosted a two-week program at Dubai Gem Private School, featuring activities designed to mirror the Emirates Airline Festival of Literature.
- Created tasks to help students enhance their creative abilities, including tongue-twister and pictorial idioms competitions, public speaking contests, debates, and a character parade with reenactments of scenes from well-known novels.

Team Captain, *DIDI Project Design Space*

June 2021

- Led a team of five to the finals of Project Design Space, UAE's largest student design competition hosted by the Dubai Institute of Design and Innovation.
- Designed a portable hygiene solution in response to the Dettol brief, addressing common hygiene issues with traditional sanitizers.
- Developed *Seifenset*, a keychain-sized dispenser containing soluble soap sheets with an integrated tissue dispenser and water-flow mechanism.
- Created and managed a YouTube channel to showcase the project presentations and incorporated feedback from DIDI faculty during the bootcamps.
- Advanced the same project to the finals of the HP STEAM Expo Innovation Award.

COMMUNITY OUTREACH

Volunteer, *ENGIN*

September 2024 – August 2025

- Volunteered for an organization that allows war-affected Ukrainian teenagers and adults to sign up to learn English for free.
- Tutored a 16-year-old girl living in Ukraine.
- Dedicated an hour to teaching and 2 hours of preparation time to find resources, create lesson plans, and track progress every week.
- Maintained communication with her in English through messaging platforms daily.

Mentor, *Dubai Gem Private School*

September 2023 – March 2024

- Mentored and worked closely with a differently-abled student in Biology for the Cambridge IGCSE board.
- Provided supplementary resources and suggested topics for further reading. Monitored the student's progress on a weekly basis.

AWARDS AND ACHIEVEMENTS

Valedictorian, *Dubai Gem Private School*

2025

Best Athlete, *Dubai Gem Private School*

2025, 2023, 2022

Edexcel High Achiever Award, *Pearson*

2024

Scholarship Winner, *Immerse essay-writing competition*

2023

- Participated in an essay-writing competition for Chemistry on the topic 'How do the structures of organisms enable life's functions?' and secured a scholarship for a two-week chemistry program at a university of choice.

First Place, *ARTOZE CREATE 2.0*

2023

- Created a themed portfolio titled 'Metamorphosis,' featuring self-portraits, portraits of friends and family, and a narrative reflecting my life and passion for science.
- Won First place in the ARTOZE CREATE 2.0 and the ArtLab Interschool competitions for my oil painting, 'The Paradox of Time'.
- Proficient with various techniques, including lightning background creation, pattern formation, and overlapping/transparency between portraits.

ADDITIONAL INFORMATION

1. **Languages:** English (First Language), Hindi (Second Language), Arabic (Intermediate)
2. **SAT:** 1540 (Reading and Writing: 750; Math: 790)
3. **London College Music Piano:** Completed Grades 1 to 6 with Distinction, currently pursuing Trinity Piano Grade 8
4. **Sports:** Muay Thai, Kickboxing, Swimming, Badminton, Athletics
5. **Creative Skills:** Painting, Photography, Digital Media Creation, Public-Speaking