

SAMIKA JAIN

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EDUCATION

Dhirubhai Ambani International School; Mumbai, India	2019-Present
- IB International Baccalaureate Diploma Program, Grade 12	2023-Present
- IGCSE Cambridge Board Examinations, Grade 10/2021-2023	

STANDARDIZED TESTS

- SAT SCORE: Total-1520; Reading and Writing-730; Math-790
- Duolingo 155/160

ACADEMIC HONORS AND AWARDS

- Grade 11-Subject Achievement Award in Chemistry HL, English Language and Lit HL, Math AA SL, TOK	2024
- Grade 10- 9A* s and 1A in IGCSE Board Examinations	2023
- Grade 10-Honour Roll Award in Grade 10	2023
- Grade 10-Subject Achievement Award in 9 subjects	2023
- Grade 9-Honour Roll Award	2022
- Grade 9-Subject Achievement Award in 6 subjects	2022
- Bronze Medal -Queen's Commonwealth Essay Writing Competition	2023
- 1st Prize- Inter House School Creative Writing Competition	2022
- 2nd Prize-Les Retrouvailles French Story Writing Mumbai Inter-school	2023
- 1st Prize-Concours Cinerama-National French Short Movie Competition	2022
- 9th position- Romain Rolland French- National Word Power	2022

SCHOOL LEADERSHIP

- Head of Writing: Press at DAIMUN (School Model United Nations)	2024-25
- Deputy Head of Writing: Press at DAIMUN (School Model United Nations)	2023-24
- Head of Creative Writing Club	2023-Present
- Press Delegate at The Hague International Model United Nations (THIMUN)	2023
- Co-Editor of Insignia School Magazine	2023-Present

BIOLOGICAL SCIENCES RESEARCH AND EXPERIENCES

Research, Internship, & Observership

Pneumonia Detection Research using AI

2024

- Created a computer vision system model to diagnose pneumonia from chest X-rays as a group project using Python code
- Evaluated my model on field data and created artificial data using image transformation to understand how well my model worked on real-life data. This model exposed me to benefits of using AI in healthcare

Internship at Biochemistry Lab of Sir H.N Reliance Hospital and Research Centre Mumbai.

2024

- Observed, understood, and prepared report on various tests like
- Quantitative estimation of Albumin and calcium and glucose present in human serum and plasma
- Quantitative estimation of ALP (Alkaline Phosphatase) in human serum and plasma
- Quantitative estimation of ALT (alanine aminotransferase); estimation of total cholesterol and iron
- Prepared report on Immunology - approved by Dr Nitin Chavan, Chief of Lab Services Reliance

Observership at Breach Candy Hospital

2024

- Observed, understood, and prepared a report on the prevalence of Osteoporosis in India. Approved by orthopaedic surgeon Dr. Rajesh Maniar of Breach Candy Hospital

Internship at S H Kelkar Ltd, Mumbai, India (www.kevaflavours.com)

2023

A specialty chemical company engaged in manufacturing food flavors and fragrances. The 5-week paid internship provided real-time experience in the field of biochemistry where I understood and observed the procedures such as oxidizing alcohols, TLC stains, and KugelRohr Distillation, processes that go behind the manufacturing of industrial fragrances and flavors, both natural and artificial.

- Understood the basics of Vacuum Distillation which is used to lower the boiling points of organic compounds. The apparatus was set to minimize electrical wastage and energy loss. Safety Protocols were carefully understood while handling apparatus and chemicals.
- Prepared a report for processes involving Brine water workup, Infrared Spectroscopy, and kugelRohr distillation.

Summer Program:

Brown Pre-College Program: Laboratory Research in Biomedicine:

2024

The 2-week residential program introduced me to the techniques in molecular biology, molecular genetics, and biochemistry which are fundamental to research across multiple life science disciplines.

- Followed a multistep, complex scientific protocol involving various techniques such as agarose gel electrophoresis, and polymerase chain reaction (PCR) along with mastering micro pipetting skills.
- Analyzed and interpreted data while observing total protein extraction from various fish muscle tissues. Along with understanding theoretical concepts, I strengthened my problem-solving and critical-thinking skills associated with conducting experiments and analyzing data.

BioSpectrum India is an integrated B2B media platform for the healthcare and bioscience industry in India and Asia. Under the mentorship of Dr Manbeena Chawla who is the CEO of the company, I strengthened my research and writing skills in the biotechnology industry. Articles published to date:

- Cure for Multiple Sclerosis (MS)- still elusive
- Strengthening Ecosystem for Medical Tourism in India
- The Economic and Healthcare impact of Hepatitis C Treatment in India
- India's biopharma and malaria elimination goal

Online Courses

- **Chemicals and Health**, final grade of 100% in 3-week online course, Johns Hopkins University
- **Systems Thinking In Public Health**, final grade of 83.30% in 3-week online course, Johns Hopkins University
- **Vital Signs-Understanding What the Body Is Telling Us**, final grade of 92.75% in 3-week online course, Penn
- **Introduction to Psychology**, final grade of 100% in a 3-week online course, Yale University
- **Introduction to Human Physiology**, final grade of 95.72% in a 10-week online course, Duke University

ANTI-TOBACCO DRIVE

2023-Present

- Collaborated with an NGO for underprivileged children: Angel Xpress, to lead and conduct successive anti-tobacco drives in municipal schools.
- The objective was to spread awareness among less informed and underprivileged youths in my locality about the harmful effects of tobacco consumption.
- Organized various interactive sessions with impactful videos, quizzes, and poster competitions. The campaign was conducted in the local language, designed to resonate with contemporary youths' experiences.
- Conducted anti-tobacco drive in Municipal gardens.

STEM ENDEAVORS

2022-2024

- **STEMinist**: Conducted a workshop for underprivileged girls in STEM. As a team of four volunteering friends, we aimed to spread the awareness of science among females of low socio-economic backgrounds.

CREATIVE WRITING

- **MUN (Model United Nations)**: Appointed Writing Head (Grade XII) and Deputy Writing Head (Grade XI) for DAIMUN. Mentored rising juniors and sophomores in writing formal and informal articles.
- **THIMUN**: Appointed as a reporter for International THIMUN, Hague, Netherlands. Created content for the social media page and website.
- **Insignia school magazine**: Wrote several articles and poems in both English and French, which was highly appreciated.
- **Orange Fizzdom**: A personal blog for poetry and prose reflecting my curated literary pieces. The collection showcases not only my appreciation for literary artistry but also my commitment to celebrating diverse perspectives.
- **La Dolce Vita**: Cultivated an archive to celebrate the exploration of self at the intersection of the female experience, pop culture, and emotions. It features an array of books, articles, art pieces, essays, and movies concurrent with personal and universal emotions.

FRENCH PURSUITS

- LES Retrouvailles 2023 Story writing Mumbai Inter-school Competition -Stood 2nd in French story writing competition 2024
- Concours Cinerama: National Competition for French Film (2022)- 1st prize along with the prestigious Jury's award at the National Cinerama competition organized by the French Institute in India. The short film was written, directed, acted, and shot by 2 classmates, and myself at Dhirubhai Ambani International School 2022
- Romain Rolland National French Competition – 9th position in the National French Word Power Competition 2020

COMMUNITY OUTREACH

Round Square International Conference (RSIC), Kenya- New Africa

2023-24

- Attended several keynote panel discussions that highlighted an array of African innovators focusing on how the African continent has evolved. Performed a group cultural dance representing India's traditions on an international platform. Engaged in a service activity by refurbishing schools in and around Nairobi.

The Welfare for Stray Dogs (@wsdindia)

2023-24

- Volunteered for a year towards the betterment of street dogs in Mumbai. A school CAS activity.

Angel Express Foundation-Transform Lives through Education

2022-23

- Taught Math and English to an assigned group of kids for a total of 40 hours, with innovative methods, I was successful in teaching core concepts to underprivileged kids in language and math.

Jaipur Foot - prosthetic limbs

2022

- Attended and volunteered at a workshop in Jaipur, to patients and observe the manufacturing process of prosthetic limbs.

MUSIC – VIOLIN

ABRSM- Associated Board of the Royal Schools of Music, UK

- Practical: Completed levels 1 to 5 of the Practical Violin Examination with awarded distinction
- Theory: Completed levels 1 to 4 of the Theory Violin Examination with merit and distinction

NCPA- National Centre for Performing Arts, Mumbai

- Solo Violin Performance at NCPA High Scorers' Concert
- School Fete - Solo Performance at School Fete