

Arhaan Desai

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EDUCATION

Dhirubhai Ambani International School, Mumbai, India

- International Baccalaureate Diploma Program 2010 - Present
 - o IB Predicted Score of 44/45 2022 - Present
- Cambridge IGCSE 2020 - 2022
 - o Board Exam: 10/11 A*s and 1 A

STANDARDIZED TESTS

- American College Testing (ACT): 34/36. STEM Score of 36/36 2022
- Test of English as a Foreign Language (TOEFL): 113/120 2023

HONOURS AND AWARDS

- *School*
 - o Academic Excellence for consistently achieving 40+/42 IB points over both terms 2023
 - o Subject Achievement Awards for Math AA HL, Economics HL, English SL 2023
 - o Honor Roll for consistent Academic Distinction in Grade 9 and 10 2021 - 2022
 - o Subject Awards for all 11 subjects in Grade 10 2022
- *National/International*
 - o CREST Gold Award for Outstanding Research 2023
 - o 2x CERN Beamline For Schools (BL4S) Outreach Award 2022, 2023
 - o Gold Global STEM Award in Research 2023
 - o Climate Science Olympiad Semi-finalist, top 300 out of 55,000 participants 2023 – Present
 - o Bronze award in HKIMO 2022-2023 2023
 - o CMC'23 Math Olympiad Silver Medalist 2023
 - o Top 500 globally in CEMC Sir Isaac Newton Examination 2023
 - o Top 3 in India in the Shri Ram College of Commerce Economics Equilibria Quiz 2022
 - o Top 20 in Harvard Pre-collegiate Economics Competition 2022

PHYSICS, TECHNOLOGY, ENGINEERING EXPERIENCES

- *Research*
 - o **Institute of Science, Mumbai** 2023
 - Synthesized and produced Cu-Ni Oxide Nanoparticles
 - Collaborated with Prof. Anamika Vittal Kadam, Physics Department Head
 - Published a paper on Nanoparticle Applications in Supercapacitors.
 - o **Simon Fraser University** 2023
 - Researched p-type and n-type doping in semiconductors
 - Theorized its applications in solar panels
 - Worked with Prof. Vijay Singh
- *Innovation, Development and Outreach*
 - o **Sagar Defence Engineering** 2023
 - Designed UAVs for the Indian Army's Defence
 - Analyzed aerodynamic performance through custom-made drone simulations
 - Assembled carbon-fibre drone hardware.
 - o **Project Drone-Acharya** 2022 – Present
 - Organized 9+ conventions with BMC, Mumbai Fire Department, Mumbai Police Department
 - Led and facilitated city-wide policies about drone utilization
 - Produced prototypes and led training sessions with Senior Fire Officer
- *Coding, Learning and Observations*
 - o **Programming Logic Control Research Study, Pakona Engineering Pvt. Ltd.** 2023
 - Authored a 20-page PLCs, HMI and SCADA study report
 - Wrote Ladder programs, ran self-made automations
 - Evaluated system architecture of the firm

- **Indian Institute of Technology, Bombay** 2023
 - Project Manager, Python Project using matplotlib, NumPy, anim
 - Projected wave simulations and functions (travelling waves, beats, double Doppler effect)
 - Shared and taught wave functions using simulations at 7 underfunded govt. schools
- *Independent Investigation*
 - **Physics Extended Essay, DAIS** 2023 – Present
 - Mathematically correlating surface tension and the viscosity
 - Using 5 different engine oils and varying temperature
- *Online Courses*
 - **Space Science:** scored 48/50 in Space Science 6-week online course, ISRO 2022
 - **Electrical Engineering:** final grade of 97% in 4-week online course, Dartmouth College. 2021
 - **Mechanical Engineering:** grade of 93% in 3-week online course, Georgia Institute of Technology 2021

ENTREPRENEURSHIP INITIATIVE AND EMPOWERMENT

- **Rogue Feet** 2018 - Present
 - Initiated shoe, and handbag customization business
 - Generated \$3700 in profits
 - Placed 4th in Indian Young Entrepreneurs Academy Investor Panel.
- **BizBoost** 2022 – Present
 - Empowered underprivileged entrepreneurs in accomplishing their dreams
 - Scaled a variety of businesses through digital outreach, educating business owners about technology and microfinance
 - Empowered self-employment of acuthery business, online delivery business
 - Educated and guided them throughout their entrepreneurship journey
 - Raised and contributed over \$1990

LEADERSHIP EXPERIENCES

- **Head Boy of Dhirubhai Ambani International School** 2022 – Present
 - Led and represented the Student Council
 - Organized 36+ events for the student body, liaising with administration
 - Conducted initiatives for students' welfare (Eg: 'Mental Health Week')
 - Delivered bilingual speeches to entire student body (1000+ students)
- **Dep. President of GA3 at THIMUN Hague '23, President of GA3 at DAIMUN '23** 2022 – 2023
 - Moderated debate with 192 delegates
 - Researched, authored a 21-page Student Officer report
 - Facilitated MUN sessions with 90+ students
- **Student Head Editor, Insignia at Dhirubhai Ambani International School** 2022 – 2023
 - Led a 20-student team in creating a 272-page publication
 - Oversaw content selection and design
 - Promoted community through stories, images and art.
- **Relay for Life, Indian Cancer Society** 2023 – Present
 - Organized a Cancer Awareness Event with 7 survivor speakers
 - Planned entertainment games for 200+ attendees
 - Led a donation drive towards Cancer research.
- **Deputy Head of Media & Design, TEDxYouth@DAIS2022** 2022
 - Designed posters, decorations, social media posts for the conference
 - Orchestrated group discussions
 - Led creative marketing strategies.

INTERNSHIPS

- **Intern, Gujarat Reclaim Project** 2021
 - Wrote a 14-page research paper on analysis and expansionary marketing strategies, implementing them
 - Developed new polymer composite products.
- **Sales and Marketing Intern, Mentorient** 2021
 - Encouraged 40+ sign-ups, organized group discussions
 - Analyzed sale trends
 - Ideated and came up with creative marketing strategies.

SPORTS

- **Table Tennis, Dhirubhai Ambani International School & Malabar Hill Club** 2017 – Present
 - Placed 1st in state-wide YMCA competition
 - Placed 4th at National-level ISSO competition
 - Led bi-weekly 30+ student training sessions.
- **Football, Dhirubhai Ambani International School** 2017 – Present
 - Play as right-back as part of the football team
 - 2nd in Oscar Foundation Football Cup

EXTRACURRICULAR ACTIVITIES

- *Community Service and Volunteering*
 - **Smile NGO** 2017 – Present
 - Teaching 40+ underprivileged students (grades 3-7) physics, math, history, geography
 - Wrote 11 modules in school subjects to aid with tutoring
 - Mentored underprivileged students to pass the Intermediate and Elementary Art Examinations.
 - **AngelXpress Foundation** 2018 – Present
 - Mentoring 60+ underprivileged students (grades 1-9) in school subjects
 - Led donation drive to collect \$19300 worth of school supplies and books for the NGO.
 - **Advitya NGO** 2022 – 2023
 - Led team of 14 in designing modules and creative sessions
 - Helped over 40 individuals with learning disabilities explore creativity through the arts
 - Raised over \$700 to help Advitya's funding
 - **ICU2 Eye Camp** 2023
 - Conducted and led eye camp in St. Mathew's Government School
 - Spread awareness of eye checkups in low income neighborhoods
 - Tested and used lab apparatus to check all the students' and teachers' eye health.
- *Art*
 - 3rd at National BeStar Art Competition 2022
 - 2nd at Regional Orchid Academy Art Competition 2022

INTERESTS

Physics, Formula 1, Reading, Drones, Volunteering, Art.