

VEDIKA DESAI

EDUCATION

Jamnabai Narsee International School , Mumbai, India	2014 - Present
<i>International Baccalaureate Diploma Program, Grade 11 and 12</i>	2025 - Present
<i>Middle Years Program</i>	2020 - 2025

STANDARDIZED TESTS

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| • SAT total score - 1490 ; Reading and Writing - 700; Mathematics - 790 | 2026 |
| • IELTS average - 8.5 ; Listening - 9.0; Reading - 9.0; Speaking - 8.5; Writing - 7.5 | 2026 |

AWARDS AND HONOURS

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| • Distinction in American Mathematics Competition Grade 12 | 2025 |
| • Ranked first in MYP extended mathematics board exams in school | 2025 |

DRONE TECHNOLOGY AND OUTREACH

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| • Created a search-and-rescue drone that performs human detection. The drone used is equipped with GPS and a camera. It uses a RGB and thermal camera to capture photos, and relays them back along with its GPS coordinates to the local computer. | 2024-2026 |
| • The drone uses technology to help save human lives in disaster situations, mainly fires, especially when sending human-help is difficult. It also uses a drop-mechanism to provide gas-protection masks to save lives. | |
| • Also wrote a comparative study research paper which focuses on how varied materials with different resistance to heat have an impact on performance, weight and efficiency of the drone. | |
| • Gained certification on the project from a local municipality corporation. | |

ENGINEERING EXPERIENCES AND RESEARCH

Research internships:

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| • Hindustan Electric Motors: <ul style="list-style-type: none">○ Interned for four weeks as an observational shift.○ Wrote a research paper comparing solid shaft and hollow shaft motors and the differences in their efficiencies, mechanical performance, and applications in industries. | 2026 |
| • Neophyte AI: was an observational intern, and learned how mechanical engineering can be combined with artificial intelligence to help various sectors of the economy. | 2025 |

Observer shifts:

- | | |
|---|------|
| • Prabha Engineering: produces wiper motors, linkages and washer systems across three different plants in India for India's OEMs. | 2026 |
| • Hindustan Electric Motors: one of India's leading electric motor manufacturers, producing motors for several industrial uses. | |

- DN Castech: an engineering-focused foundry serving the industrial casting sector, with capability centred on Grey Iron and Ductile Iron.
- Paras Pump Private Limited: an established manufacturing organisation with a focus on engineering components and manufacturing processes.

Courses and Workshops:

- Mechatronics and robotics course
- Six Sigma course from Coursera

2024

2026

SCHOOL LEADERSHIP

- Jamnabai Narsee Adolescent Mentorship Program - mentor for students to help tackle academic and social stress. Discussed problems and provided adequate solutions to tackle personal challenges.
- Vice Chair at International Youth Conference, Jamnabai Narsee International School

2023-2027

2026

CLEAN ENERGY PURSUITS

- Head of the 'Cleanergy club' - Was the head of the club 'Cleanergy' in school, which focused on spreading awareness about energy. About 40 students were part of the club.
- Founder of a project which helped needy organizations with solar panels - Contacted companies to collect CSR funds. Partnered with a solar panel provider and identified needy communities to install solar panels.

2024-2025

2024-2026

AI EXPERIENCE AND COMPUTER-SCIENCE

- Internship at Neophyte AI - Learned about the collaboration between AI and mechanics, and design using Blender. Understood how retail uses AI and robots and their implications.
- Completed a Java Programming Course

2025

2024

CREATIVE AND CULTURAL PURSUITS

- Earned a diploma in Indian Folk Dances, and succeeded with A+
- Completed trinity keyboard until grade 4

2022-2026

COMMUNITY SERVICE

- Completed a crowdfunding where I collected more than 50,000 Rupees to improve rural education in Maharashtra

2024