

EDUCATION

Bombay International School, Mumbai, India

Anticipated Graduation: 2027

- IB: Math AA, Physics, Chemistry (HLs); Economics, English LAL, Hindi (SLs)
 - IGCSE Grade 10- 9 A*s (Chemistry, Physics, International Math, Additional Math, History, Computer Science, English Literature, English as a first language, Hindi)
 - SAT - 1560 superscore (760 R&W 800 Math)
 - AP Microeconomics: 5/5
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ENGINEERING, TECHNOLOGY AND RESEARCH

Tech Project - Beetle Robot, Mumbai (May 2024 - present)

Built a quadruped fire rescue robot w/ Arduino Nano, servos for navigation, assessment, & hazard response

- Integrated Wi-Fi camera with night vision and audio, 6-channel RC receiver for long-range control
- Pitched to DRDO; Received appreciation from Officer-in-Charge, Fleet Testing/Tuning Dept, Naval Dockyard
- Presented prototype to 200+ attendees at the Fire Safety Association of India, Mumbai Conference

Tech Project- Khadify(Smart Compost System), Mumbai (Jun 2023-present)

- Conducted field studies at agricultural farms across Maharashtra to observe real-world composting practices, material inputs, and cost constraints.
- Designed and prototyped a smart composting system integrating IoT sensors and actuators to monitor key compost parameters (temperature, moisture, NPK, gas)
- Built a machine-learning driven dashboard that processes sensor data to model compost health trends, detect inefficiencies, and generate recommendations for improving quality based on individual plant requirements
- Awarded Gold CREST Award in December 2025 for project - “ML and IoT Sensing to Enhance Compost Quality and Speed Processing”
- Selected for the prestigious IRIS National Fair 2025–26 (Initiative for Research and Innovation in STEM); ranked among the top 120 student innovators nationwide. Awarded a Gold Medal (top 30), qualified for Regeneron ISEF 2026 to represent India.

Research Work (September 2023 - Present)

- **Independent Author, Research Project on Mangroves based coastal erosion modelling** Mumbai (September 2025-present)
 - Conducted literature review and comparative analysis of mangrove datasets; developed Python codes to map Hansen Global Forest and Global Mangrove Watch datasets for assessing regional mangrove loss in Mumbai as well as comparing inconsistencies between datasets
 - Simulated mangrove root impact on shoreline erosion using ANSYS/MATLAB to evaluate coastal protection and model long-term erosion patterns

Observerships (May 2024-Present)

- Defense Research and Development Organization (DRDO, New Delhi) - Explored and examined fire safety protocols in defense establishments. Received feedback to improve fire safety robot's functionality
- Indian Institute of Technology Delhi (IIT Delhi) - Explored research in on-ground and underwater electronics, studied advanced applications of electronic systems

Internships (July 2025 - Present)

- **Research Intern – Hippo Technotex**
 - Researched and analyzed the Cool Roof System, a proprietary insulated sandwich panel solution designed for rapid installation and superior thermal insulation
 - Assessed its performance, structural feasibility, and cost efficiency against traditional roofing methods
 - Started developing engineering-based recommendations for scalable applications of the Cool Roof System in sustainable urban infrastructure

SCHOOL LEADERSHIP AND CLUBS

Head Boy, Bombay International School (Jan 2024- Jan 2025)

- Elected by school faculty to represent the school
- Managed the logistics and coordination of pivotal school events, including weekly assemblies, the election process, investiture ceremony, NGO fair, and talent show
- Organized BIS's very first interschool short film competition called the BIS beholder

Tech Secretary, Bombay International School (Jan 2023- Jan 2024)

- Was elected by the student body to lead all inter and intra-school tech initiatives
- Handled Audio-visual responsibilities and managed the student government website
- Acted as liaison between the communications task force, students and parents
- Spearheaded the BIS Technology Fest under the theme of "Tech for all" to encourage all students to develop a passion for technology
- Led panel discussions with industry experts; designed a tech escape room, hosted tech workshops, provided a platform for students to pitch their tech ideas as shark tank projects

President, Engineering Club (Jul 2024-present)

- Led engineering workshops, field visits, and hands-on workshop series encouraging early engagement and exploration in 3-D design, drones and aeronautical engineering, and prototyping

Founder, AI Club (Jan 2023- Jan 2024)

- Founded a school AI club in collaboration with 'Coding & More', leveraging their expertise as an industry specialist in coding and related fields through a franchise model
- Facilitated communication between school authorities and the organization to ensure the smooth running of the club

COMMUNITY SERVICE

Cyber-Bullying Initiative (July 2024 - Present)

- Created an informative and interactive [website](#) containing fundamental information to spread awareness about cyberbullying
- Organised an art exhibition along with Brush of Hope organization to display the artworks of a cyberbullied student in school to portray its detrimental impacts on mental health and also organised a panel discussion with experts in the field to talk to the students about cyber safety
- Pitched the portal to the heads of Z-schools for cyberbullying awareness to become part of the curriculum at 100 schools
- Held recurring online seminars(December 2024 - present) with 1000+ students and teachers discussing cyberbullying policies, and action oriented youth involvement
- Designed infographic pamphlets about cybersafety in two languages for the school staff
- Started a petition for robust Indian laws for cyberbullying, 1300 sign ups procured. Endorsed and recommended by Department of Education, Maharashtra

COMPETITIONS AND AWARDS

Gold Medal, Smart Compost System, IRIS National Fair (January 2026)

IGCSE World Topper in Additional Mathematics (June 2025)

International and National Olympiads (Feb 2024 - Dec 2024)

- **Gold Medal**, Singapore and Asian School Math Olympiad
- **Silver Medal**, Hong Kong International Science Olympiad
- **Distinction in Pascal Contest**, University of Waterloo

Think Award at Kazakhstan National Championship, Inspire Award & 2nd place overall at India National Championship, CAD designer of the G-Force Team, First Tech Challenge, (Sept 2024- March 2025)

Gold CREST, Co-Author, Research Project on Corrosive Properties of Beverages, (Sep 2023-May 2024)

Most Creative Project, Cyberbullying Website, Bombay International School, Tech fair (October 2024)

TREKS, TRAILS, AND MORE

Trekking (Jul 2024-Present)

- NOLS New Hampshire Backpacking Adventure, USA -Embarked on a 15 day trek, covering 65 miles of diverse terrain while developing leadership, survival and teamwork skills
- Sandakphu Phalut Trek, West Bengal - 50 miles trek
- Uluru Kata Tjuta National Park Trek & Uluru Base Walk, Australia- 10 miles
- Created a basic app to help trekkers navigate their paths and share experiences on paths

Hobbies:

- Advanced Alpine Skier (Black Diamond Slopes)
- Open Water Certified Scuba Diver
- Badminton
- Rock & Pop Guitar (Trinity College Grade 2 with Merit)

Technical Skills:

- Python, C++, Arduino, HTML, Fusion 360, MATLAB