

REETH BHASIN

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EDUCATION

Oberoi International School , Mumbai, India;	2020 - Present
- <i>International Baccalaureate Diploma Grade 12;</i>	2023 - Present
- <i>International Baccalaureate Middle Years Programme Certificate</i>	2020 - 2023
Jamnabai Narsee International School , Mumbai, India;	2018 - 2020

STANDARDIZED TESTS AND APs

- SAT Test Score: Total: 1480; Reading and Writing: 720; Math - 760	2024
- IELTS: Overall: 7.5; Speaking 7.5, Listening 7.0, Reading 7.5, Writing 7.0	2024

ACADEMIC HONORS AND AWARDS

- Initiative for Research and Innovation in STEM (IRIS) National Fair , Delhi, India Received for the project, ' <i>Seebeck Effect-Based Thermoelectric Energy Generation for Residential Applications</i> ' explained below	2022
- CREST GOLD AWARD, British Science Association , United Kingdom Received for the project, ' <i>Seebeck Effect-Based Thermoelectric Energy Generation for Residential Applications</i> ' explained below	2024
- The University of Waterloo Sir Isaac Newton Award , Distinction	2024
- The University of Waterloo Avogadro Exam , Distinction	2024
- The American Mathematics Competition 10 , Distinction and Qualified for AIME	2022
- The University of Waterloo Cayley and Galois Contest , Distinction	2022
- FIRST Robotics Competition Istanbul Regionals , Industrial Design Award	2024
- FIRST Tech Challenge Asia Pacific Open Championships , Finalist Alliance	2023
- FIRST Tech Challenge India Nationals , Finalist Alliance	2022 - 2023
- World Robotics Olympiad India Nationals , Silver Medal	2022

STEM INNOVATION

- Seebeck Effect-Based Thermoelectric Energy Generation for Residential Applications	2021-present
- Innovated a new approach for energy harvesting using internal and external temperature gradients in homes, producing up to 14.4 kW of power with 144,000 Peltier modules interposed in brick walls.	
- Conducted theoretical and experimental analyses to optimize the system's efficiency for real-world applications and to deliver a low-cost, space-efficient, and eco-friendly energy alternative, suitable for regions with large temperature variations.	

- Codeवे a High-Level Block-Based Visual Programming Software In Hindi For Underprivileged Primary Students 2021-2023

- Developed a coding platform in Hindi to teach programming to underprivileged children, bridging education gaps.
- Structured weekly lessons focusing on fundamental programming skills and conducted monthly assessments to track student progress.
- Delivered an affordable and scalable educational tool that enhances coding skills and fosters interest in technology among underprivileged students.

ROBOTICS AND TECH PURSUITS

Technology Council in School 2021-present

- Served as a member of the school technology council throughout high school playing a key role in overseeing event logistics, participant registration, and schedule management organizing and managing hackathons and tech fests in school.
- Designed and created custom products, as part of event souvenirs on multiple occasions

School Robotics Club 2021-present

- Founded and managed the robotics club and school robotics teams, recruited and trained over 25 students, and guided them through all stages of the competition preparation, from initial training to final event execution.
- All teams trained achieved top 10 rankings in national competitions
- Directed coding, electronics, and technical leadership in various national and international robotics competitions.

Robotics Competitions 2021-2023

Participated in several prestigious regional, national, and international robotics competitions: playing key roles in coding, electronics, and overall technical leadership. Key accomplishments include:

- *FTC 2022-23 and FTC 2023-24 Challenges*: Finalist Alliance in the India National,
- *Open Invitation FIRST Asia Pacific Championship*: Finalist Alliance
- *World Robotics Olympiad*: Earned a national certificate and a silver medal on my project.
- *World Robotics STEM Olympiad*: Achieved national qualification
- *Istanbul Regional FRC Competition*: Secured a spot among the top 25 teams and earned the Industrial Design Award.

Robotics Outreach 2021-2023

Trained underprivileged students in Java, JavaScript, and basic robotics, resulting in their participation in FTC India Nationals for two consecutive seasons.

Internship at Tactus Ventures 2024

Tactus Ventures Private Limited was incorporated on December 26, 2018, and registered in Mumbai, India. As an intern, contributed to the development of a health-monitoring shoe using generative AI and machine learning for gait analysis and health prediction.

ENGINEERING EXPERIENCES AND RESEARCH

Working and Understanding the Working of Various Types of Machinery Used in Shoe Manufacturing 2023

Gained hands-on experience in understanding the principles behind various types of machinery used in shoe manufacturing.

Observation of the Working of Liquid Syrups 2023

Learned how gravity and the use of machinery help to produce and package liquid medicinal syrups

SCHOOL EXTRACURRICULAR ACTIVITIES

Model UN 2017-present

Participated in 15 Model United Nations (MUN) conferences from Grade 7 to the present, as a delegate, Head of Communications and Logistics, and chair.

School Magazine 2021-2024

Managed the school magazine's social media presence and promoted its content.

Ecological Club 2022-2024

Raised environmental awareness and promoted sustainability within the school as the club's magazine editor.

OUTREACH

Upcycling Shoes and Bags 2023-2024

Volunteered with GreenSole, an organization focused on turning discarded shoes into usable products. Distributed upcycled shoes and bags to rural children while promoting sustainability.

Providing Underprivileged Students with STEM Education 2021-2024

Taught math and science for 3 years, providing weekly 2-hour long lessons to underprivileged students.

SKILLS

Coding in 6 programming languages: JAVA, JAVASCRIPT, HTML, PYTHON, CSS, C++
Excellent in mechanical and circuit construction

INTERESTS

- Movies
- Fashion
- F1
- Reading
- Wildlife Photography