## Rehaan Kothari

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#### **EDUCATION**

Jamnabai Narsee International School, Mumbai, India — International Baccalaureate Diploma Program (IBDP) Grade 11 & 12 — International General Certificate of Secondary Education (IGCSE) Grade 8 to Grade 9 & 10	2024-25 2021-24
ACADEMIC HONORS AND AWARDS	
● World Topper for securing 100% in Mathematics International General Certificate of Secondary Education	2024
School Topper in Mathematics, Physics and Economics in International General Certificate of Secondary Education	2024
Awarded 'Outstanding Cambridge Learner Award'	2024
● Validation in Grade 10 with 6A* in IGCSE Board examinations	2024
<ul> <li>Subject Achievement Awards in Physics HL and Economics HL in Grade 11</li> </ul>	2025
● Top 4 Percentile in International baccalaureate Diploma Program (IBDP) Grade 11, 39/42 Batch strength 92	2025
• Certificate of "DISTINCTION" in FERMAT CONTEST for the 'centre for 'Education in Mathematics and Computing' (CEMC contest)	2024
<ul> <li>Awarded as 'First Position' in 'Grand Cultural Event' Jamnabai Narsee International School</li> </ul>	2024
• Gold Crest Award— on implementation of Lean Manufacturing in the diamond industry and it has been awarded a CREST Gold Award.	2025
ENGINEERING EXPERIENCES AND RESEARCH	

Author, Research Paper: (2024-2025)

- Researched and developed an original paper under the mentorship of Dr Mehul Shah on the implementation of Lean Manufacturing in the diamond industry 'Supreme Gems' Dahisar (Mumbai) India. Conducted site observation, employee interviews, and data collections.
- The project examines machine flow through Value Stream Mapping (VSM). It also evaluates how effective the process is at reducing waste and identifies the processes that benefit the most from lean changes, thereby determining how beneficial lean manufacturing is for the diamond industry. The result gave actionable recommendations for increasing operational effectiveness, optimising resource utilization, and overall productivity.

Author, Research Paper: (2025)

- Written an original paper on the study on Robotic cleaning system on Solar panelling Interned at Solar-LIT Company at Khavda Renewable Energy Park in Kutch Gujarat.
- Analysed an Automatic Robotic Cleaning System for solar panels, Learned Al-driven dirt detection, robotic navigation, and eco-friendly cleaning
  methods that enhance energy efficiency, reduce manual labour, and support sustainable renewable energy innovation through advanced robotics
  and artificial intelligence applications. I also explored optimising this system using sensor integration and data analytics.

## **ENGINEERING EXPERIENCE**

# Intern | Larsen & Toubro, Chennai

2024-2025

- Gained hands on exposure in how valves were produced and designed as well as understanding and observing how the operating mechanisms work.
   Observations of the design, sizing, materials, testing, and operations, working across manual, powered, and automated systems was done.
- Gained practical experience that enhanced my technical understanding, practical application skills, and knowledge of quality standards, preparing me to address real world engineering challenges effectively.

### Intern | Metal Craft Engineering & Spring Industries, Mumbai

2024

- Explored the firm's product offerings, manufacturing capabilities, operational methodologies, comparative strengths, and strategic positioning in the Indian precision engineering ecosystem.
- Job shadowed to understand the high-precision metal component production both as a regular and as special parts with advanced tools and high-quality workmanship

## Intern | Solar lit Robot based cleaning system on solar panelling at Khavda renewable energy park, Kutch Gujarat.

2025

- Gained hands-on experience at the Solar-LIT robot cleaning system company where learned AI driven dirt direction, ecofriendly cleaning method.
- Was a part of the design and construction of the Solar LIT robot team. Here the experience strengthened my technical and research skills in renewable energy innovation through advanced robotics applications.

#### **ONLINE COURSES**

**Inspirit AI program**-I obtained a certificate of completion after completing the 'Inspirit AI Scholars Program.' I successfully completed a Music Recommendation Project as part of the program, improving my coding, critical thinking, and project management abilities while gaining practical experience in AI, machine learning, and data-driven problem-solving in 2025.

**Floor cleaning robotic project**-Currently engaged in a robotics project aimed at creating a robot that can clean floors. The project combines C++ and Java for automation, navigation, and control system programming. It improves mechanical integration, coding, and problem-solving abilities while giving practical experience in creating effective robotic solutions for real-world, daily cleaning applications.

#### **COMMUNITY SERVICE**

#### President | Interact club of 'Rotary Club of Mumbai GenX.

2025

Organised Festive projects like 'Festival of India' as 'Ganpati Visarjan,' 'Ras Garba' events, coordinating social initiatives and engaging youth to drive a positive impact.

#### Founder | 'Fuel a Dream' campaign for underprivileged children in school

2022

Conducted Drives which provided the students with back-to-school kits. (which includes Books, bags, stationery, footwear, school dress, study mat, masks etc)

#### Volunteer | Socially and actively engaged in 'Lakhania Village' in Gujarat

2024

Organised planning and executing community initiatives including Lakhania Utsav, teaching sessions, science experiments, sports events, a medical camp, and food service, while fostering meaningful bonds with village students through diverse collaborative activities.

### Founder | Solar-lit Unemployed workers Empowerment & Social Impact

2025

Organised unemployed workers to be a part of the team and trained them working for an Automatic Robotic Cleaning System for solar Panels, with the help of Al driven dirt detector and ecofriendly cleaning method it enhances energy efficiency through advance robotic system.

#### **EXTRACURRICULAR AWARDS**

<ul> <li>Leed Platinum Certification obtained for new construction and Major revolution project in the firm 'Supreme Gems'</li> </ul>	2025
Participated in the Committee G14 at the International Youth Conference in September	2024
<ul> <li>Awarded Excellence Certificate for Eumind Project Europe for 'The Creative Entrepreneur</li> </ul>	2023
• Awarded 'Certificate of Excellence Best Article on Project for- '3 Generations' on Healthy Life for exchange Program 'Eumind- Europe Meets India'.	2023
Certificate of Participation in HMCSF Young Leadership Program in	2023
Participated in the Committee G20 at the International Youth Conference in September	2022
<ul> <li>Awarded for Guitar Grade 4 for 'Rock and Pop' in Trinity College London in March</li> </ul>	2022
SPORTS	
Awarded Certificate of Achievement as First Runner-up in Box Cricket at Quintessence in Jamnabai Narsee International School	2025
Awarded Merit Certificate for standing Second in Inter-house Football	2025
Awarded 'Third Position' in Interhouse Football	2025
<ul> <li>Achieved level 4 for Skiing at Les Elfes International Camp</li> </ul>	2023
• Awarded Merit Certificate for standing first in 'Boys Relay- 100 meters in Annual Athletic Meet in Jamnabai Narsee International School	2022
Awarded as Game developer with Whitehat Jr with deep UI/UX interface	2022

- Computer Skills: C++, Java, Python
- Languages: English, Hindi, Gujarati (native, trilingual), French & Spanish (novice)

#### INTERESTS

- Awarded Diploma in Japanese Martial Arts International (Regd)-Go-Ju- Ryu Karate -Do. as Black Belt 1, Black Belt 2 and 'Black Belt 3'
- Guitar playlists, Certified Grade 4 levels in Guitar (Rock and Pop) from 'Trinity Collage from London'
- Teaching self-defence to underprivileged girls through Martial Arts Karate