

# Sahaj Patel

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## EDUCATION

Navrachana International School, Vadodara, India;	2011-Present
International Baccalaureate Programme, Grade 12;	2024-2026
Navrachana International School, Vadodara, India;	
Cambridge IGCSE board examination, Grade 10;	2022-2024

## STANDARDIZED TESTS

• SAT: Total - 1540; Math: 790; Reading & Writing: 750	2025
• IELTS: Overall Band: 8; Listening: 8.5; Reading: 9; Writing: 7; Speaking: 7.5	2025

## ACADEMIC HONOURS AND AWARDS

### *School:*

• Ranked 1st in Physics, Chemistry, Mathematics AA HL, and Economics in Grade 11.	2024-2025
• Awarded the ICE Distinction for achieving 7 A* in the IGCSE Board Examination.	2024
• Topped the school in Mathematics in the IGCSE board examination (Rank 1 out of 54 students).	2024
• Consistently stood first in Additional Mathematics throughout Grades 9 and 10, earning a near-perfect score of 159/160 each term.	2023- 2024

### *International:*

• Recipient of the British Gold Crest Award for innovation in the electric-vehicle sector, recognizing excellence in applied science and design.	2025
• HKIMO Gold Medalist for exceptional analytical and problem-solving skills.	2025
• Achieved Distinction in the Hypatia and SIN Olympiads, placing among the top global candidates.	2025
• Named an International Youth Math Challenge Finalist, representing India in global mathematical competitions.	2025

## SCIENCE AND VOCATIONAL SKILLS DEVELOPMENT

### **Baroda Science Society — Founder & President**

*Founded and led a youth-driven initiative promoting STEM education among government-school students across Gujarat.*

- Conducted hands-on science workshops for 500+ students, introducing them to practical experiments and real-world applications.
- Successfully increased the percentage of students opting for STEM fields in secondary education.
- Secured corporate sponsorships through CSR initiatives amounting to ₹12,40,000 to establish science labs in rural schools.

## STEM, INNOVATION, & RESEARCH EXPERIENCE

**Innovation — Technology International Pvt. Ltd.(85H8+QCH, 404, Synergy Square, Krishna Industrial Estate, 390016, BIDC Gorwa Estate, Gorwa, Vadodara, Gujarat 390003)**

Interned for over a year at a leading mechanical-engineering firm.

- Contributed to the design, prototyping, and market launch of four commercial products, including sustainable solutions in the EV sector.
- Supported engineering calculations, material selection, and process optimization to solve long-standing industry challenges.

2024-2025

### **Research — Maharaja Sayajirao University of Baroda**

Collaborated with the Head of Engineering and senior researchers to improve aircraft efficiency through aerodynamic testing and calculus-based modeling.

- Explored optimization models for lift-to-drag ratios and energy efficiency in light-weight aircraft structures.

2025

### **Publication:**

Published a **peer-reviewed paper** titled “*Predictive Maintenance of Aircrafts Using Machine Learning*” in the **International Journal of Research in Science & Technology (IJRST)**.( <https://ijrst.com/currentissue.php>) 2024-2025

**Research - INOXCVA (Inox India Limited, GJ SH 175, near Boru, Kalol, Gujarat 389330)**

*Collaborated with this global firm to research and build dish ends for pressure vessels, tanks, and pipelines.* 2025

#### **Enrichment Programs:**

- Selected for the **Young Tech Scholars Program**, where I **designed and built a hand-propelled car** using advanced coding and mechanical systems. 2024

- Completed online certifications:
  - *Fundamental Skills in Engineering Design* – University of Leeds
  - *Python for Beginners* – University of Michigan
  - *Linear Algebra* – Johns Hopkins University

### **SCHOOL LEADERSHIP**

- **Head Boy:** *Elected to lead a student body of 1,500+ students, overseeing school-wide initiatives, events, and leadership programs.* 2024-2025

- **Chair – UNHRC (NIMUN XV) | Core Team Member – NIMUN XV | Co-Chair – NIMUN XIV | Best Delegate – NIMUN XIII.** 2023-2025

- *Led delegate training sessions and moderated inter-school debate conferences, promoting diplomacy and critical reasoning.*

### **BASKETBALL ACHIEVEMENTS**

- **Top 75 in India** – Selected for the **U17 Indian National Team Selection Camp.** 2023
- **Captain – Gujarat U17 National Team**, leading the squad through multiple championships. 2024
- Represented **Gujarat U17 and U19 at National and SGFI Tournaments.** 2024
- Selected for the **ISSO Nationals Team.** 2020
- Awarded **Best Defender – ISSO U14.** 2020
- Competed in **8+ state-level tournaments**, representing Vadodara 2020-2025

### **MUN & DEBATE**

**Chair – UNHRC (NIMUN XV), Co-Chair – NIMUN XIV, Best Delegate – NIMUN XIII.**

- Experienced in **policy negotiation, conflict resolution, and international diplomacy.**
- Regular participant in **open debates and cross-disciplinary discussions** on geopolitics and ethics. 2023-2025

### **COMMUNITY SERVICE**

**Founder – DonateMeds**

- Created a **sustainable medicine-donation platform** that collects unused medicines from households and redistributes them to **government hospitals.**
- **Over 500 medicines donated**, directly improving healthcare access for underprivileged communities. 2023-2025

**Interact Club (Rotary International)**

- **Treasurer (2023–24) | Joint Secretary (2024–25).**
- Organized **fundraisers, health drives, and community outreach programs** impacting local families.

### **SKILLS**

**Programming:** Basic proficiency in **Python** and **Java**.

**Technical:** Engineering Design, Data Analysis, Process Optimization, and Scientific Writing.

**Soft Skills:** Leadership, Collaboration, Public Speaking, Strategic Thinking.

### **INTERESTS**

**Sports:** Basketball (U17 & U19 Nationals), Pickleball, Cricket

**Academics:** Mathematics, Physics, Applied Engineering

**Public Speaking:** Model UN, Debate, Leadership Panels