

Anagha Shah

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English (fluent), Gujarati (native), Hindi (fluent), Spanish (basic, continuing)

EDUCATION

Jamnabai Narsee School, Mumbai	2012 to 2027
- Indian School Certificate (ISC), Science: Physics, Chemistry, Mathematics, Economics, English (2025 to 2027) - Indian Certificate of Secondary Education (ICSE), 98.2% (2025)	

HONORS

All India topper in Social Science and Gujarati, ICSE	2025
Excellence in Academics, Grade 10. Nominated for Best Pupil (5 of 288 students)	2025
Excellence in Academics, Grade 9, top 2% of 288 students	2024
Gold CREST Award, British Science Association, for CoughScope	2026
ExSTEMplar ASTRYC: Phase 3 Finalist, invited to the Phase 4 Final Showcase, for CoughScope	2026
SASMO (Singapore and Asian Schools Math Olympiad): Perfect Score, Global Rank 1	2026
Cambridge Economics and Finance Competition: Gold Award, qualified for the Global Round	2026
Canadian Chemistry Contest: Asian Silver Award and Special Merit Award	2026
International Economics Olympiad: Silver Award	2026
S.T. Yau High School Science Award (Asia): shortlisted for the second round (Biology), for TechFlow	2025
Technovation Girls: Senior Division Semifinalist, for TechFlow	2025

RESEARCH

CoughScope: low-cost COPD screening with spirometry and acoustic analysis	2025 to 2026
- Built a dual-modality screener on an ESP32 combining portable spirometry with lung-sound analysis. - Implemented baseline correction, filtering and normalization. Extracted DFT and MFCC features. - Trained SVM, KNN, decision tree and shallow neural network classifiers: 92.5% accuracy in COPD versus non-COPD classification across 56 clinical participants. - Shared a working guidebook with the health teams of two NGOs, which agreed to host on-site testing at their health camps. - Gold CREST Award, British Science Association, June 2026.	
TechFlow: menstrual flow estimation using image-based machine learning	2024 to 2026
- Built a dataset of real and 100 hand-prepared samples varying color, volume and viscosity, since no image database existed. - Applied YOLO object detection and HSV color segmentation: about 85% accuracy predicting flow category. - Presented to the Deputy Lead of Gynecology at R. N. Cooper Municipal Hospital and the K-West Ward Health Officer. - Published in IJSHRE, Volume 13, Issue 10, October 2025 (DOI 10.26821/IJSHRE.13.10.2025.131006). Co-authors: Divya Madhavan, Vinay Vishwakarma.	

ISC coursework research

2025 to 2027

- RC circuit capacitor charging and discharging using differential equations (Grade 12 Mathematics)
- Accuracy of early disease detection models using conditional probability and Bayes' theorem (Grade 12 Mathematics)
- Capacitor charging and discharging dynamics (Grade 11 Physics)
- An analysis of the role of green chemistry in a sustainable future (Grade 11 Chemistry)

ENGINEERING EXPERIENCE

Software Engineering Intern, NWDCo. Software Solutions, Mumbai: LA Vision smart glasses 2026

- One of three interns selected through the school Co-Op program for a one-month full-time placement in a four-person team.
- Built a Flutter app holding a real-time Bluetooth Low Energy and Wi-Fi link to smart-glasses hardware.
- Chained speech-to-text, language processing, image understanding and text-to-speech into one hands-free loop, with media control and Google Maps navigation.
- Reverse-engineered the glasses' undocumented communication protocol and designed a real-time logging framework to trace device-to-app faults.

Industrial Engineering Intern, Starways Group, Mumbai 2025

- Three-week placement (one week on site) following precision-machined parts from raw material to final inspection.
- Mapped cold-forming line workflows and analyzed shift output, CNC cycle-time and downtime logs. Report reviewed by the plant supervisor.

Observer, EcoBox Industrial Parks, Mumbai (company founded by my father) 2024 to 2026

- Analyzed six months of electricity data for two tenants: load factor, power factor and demand utilization against sanctioned capacity. Reviewed by the electrical consultant.
- Converted parcel volumes into dock requirements for a 425,000 sq ft warehouse in an Excel scenario model. Visited the Bhiwandi site.

Industrial study tour: Yazaki, Haier, Hindustan Electric Motors (Pune and Vapi) 2025

ROBOTICS

FIRST Tech Challenge, Team G-Force #19013, programmer 2023 to 2024

- FTC India Championship 2024: won all matches and scored 281 points, a national record, in a field of 59 teams. Winning Alliance, Connect Award 2nd runner-up and Compass Award (team).
- Asia Pacific Open, Sydney 2024: represented India in a 23-team field. Finalist Alliance, Judges' Choice Award and Promote Award (team).
- Mentored 12 students from SSRVM's Dharavi Dynamites, who placed 15th nationally. Raised the rupee equivalent of about USD 8,500.
- As part of Team G-Force, helped train two FIRST LEGO League teams for their 2024 national competitions.
- Sent biweekly STEM newsletters to a list of 8,000 schools. Presented to 200+ principals at the Eduleaders Summit, where 12 agreed to open STEM labs.

LEADERSHIP

ISC House Representative, Akbar House, Student Council

2026 to 2027

- Elected by the ISC section of 269 students to lead 90+ students through 15+ events (3 trophies). Built a student-interest tracker for selections.
- Led the inter-house fashion show: auditioned 50+, directed 20. Best Costume for Male Ensemble.
- Mentored about 20 students on ISC science projects. Encouraged 30+ new students to join the school MUN.

House Captain, Akbar House

2024 to 2025

- Led 280+ students in Grades 6 to 10 through 45 events. 4 trophies and 3rd place overall.

Chair, UNEP Senior Committee, JNS Annual World Summit

2026

- Chaired a 25-delegate inter-school committee, wrote the research guide and mentored three delegates.

Best Delegate and Best Position Paper, IMUN. High Commendation, JNS Annual World Summit	2023
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ISDS Debate: top 6 speakers of 54, team qualified for nationals	2023
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Team Leader, EUMIND World of Work virtual exchange with the Netherlands. Certificate of Excellence	2023 to 2024
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Co-founder and admin, ISC Book Club (40+ students)	2025 to present
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Founder, Page Turners Book Club (40 members)	2020 to 2026
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Founding member, Women in STEM Club	2025 to 2026
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SERVICE

Founder, The Helping Hands Club

2017 to present

- Raised INR 2 lakh through a book-sale fundraiser with about 10 partner organizations, funding supplies for 300 children orphaned during COVID and the continuing education of three girls.
- Ran Teen Tech Tutor: taught 10 senior citizens and 3 domestic staff online banking and everyday technology.

Founder, FemEngineers

2024 to present

- Guidance initiative and podcast for girls considering engineering, with experts in applied physics, cybersecurity and software engineering.

Read India Read app concept, MIT Appathon. Field-tested with students from Saaksharta	2023
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Scribe for two students with learning differences in Grade 10 board exams	2024
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ARTS AND INTERESTS

Kathak, Nalanda Dance and Research Centre: seven-year program, annual performances, taught community students	2016 to 2023
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Speech and Drama, Trinity College London: Distinction across all grades to Grade 8	2012 to 2023
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TED-Ed Club speaker: four talks	2020 to 2024
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Published short story "Ctrl + Z" in the anthology Silence	2025
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ECO2 Smart Schools Climate Summit (COP 26 to 28): built and presented an energy-harvesting tile	2020 to 2023
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Basketball: school team in inter-school competitions

SKILLS

Python, Java, Flutter, MIT App Inventor, HTML. Coursera: AI for Medical Diagnosis (DeepLearning.AI).