KUNAL DEEPAK

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B-2002, Beaumonde Towers, Prabhadevi, Mumbai - 400025

EDUCATION

Dhirubhai Ambani International School (DAIS), *Mumbai* 2021 – Present

- **IBDP**: HL — Mathematics AA, Physics, Economics; SL — Chemistry, English A Lang/Lit, Hindi B
- **ICSE (97%)**: Mathematics; Physics, Chemistry, & Biology; Environmental Science; English Language & Literature; Hindi; History, Civics & Geography; Physical Education

SAT: **1540/1600** (Math: 790; Reading & Writing: 750) Aug 2025

ACADEMIC HONORS & AWARDS

School

- **Certificate of Commendation:** Excellence in Robotics 2025
- **Subject Effort Awards:** Economics HL, Hindi B SL 2025
- **Subject Achievement Award**: Physics, Math, Environmental Studies, Geography, English, Physical Education 2024
- **Honor Roll:** DAIS 2023
- **Subject Awards**: English, Physics, Chemistry, History and Civics, Environmental Studies 2023

STEM

- **World Rank 1:** Avogadro Chemistry Exam - University of Waterloo 2025
- **Silver Medal:** HKIMO - Senior Secondary 2024
- **Distinction:** Fryer Exam - University of Waterloo, CEMC 2023
- **Bronze Award:** PIMSO & HKIMO - Secondary 3 Category 2023
- **School Rank 1:** AMC 10 2023
- **Rank 3:** FRC Long Island Regional 2023
- **Distinction**: Gauss 8 - University of Waterloo, CEMC 2022
- **School Rank 2**: AMC 8 2022

Robotics

- **Rank 1 & Captain, of the Winning Alliance** - FRC Istanbul- Regional 2025
- **Rank 1 & Captain of the Winning Alliance** - FRC Haliç Regional 2025

CLEAN ENERGY & ENVIRONMENTAL PROJECTS

Lead Developer, VoltGuard, IIT Bombay, *Mumbai* July 2025

- Designed a device to evaluate battery health using voltage, temperature, load and internal resistance
- Integrated transistors, a rhodium pico microcontroller, infrared diodes and sensors with a cloud-based dashboard
- Aimed to reduce e-waste by suggesting reuse applications before recycling

Research Intern, LOHUM (Battery Recycling Firm), *Noida* June 2024

- Conducted elemental analysis on lithium-ion cells using brine discharge and ICP machines
- Authored a technical report on degradation patterns using visual and chemical indicators
- Wrote a research paper on lithium-ion battery types, structure and long-term aging for internal review

Research Paper: *Biogas Quality Monitoring & Indication System* April - May 2024

- Built an Arduino-based device using MQ gas sensors to assess biogas composition
- Conducted a comparative literature review of historical biogas quality measurement techniques
- Presented findings at the International Conference on Business & Technology (Cambridge University) for publication

ACADEMIC PROGRAMS

Emerging Innovators Program, IIT Bombay, *Mumbai* June - July 2025
- Attended 50 hours of electrical & software engineering training, learning advanced uses of rhodium boards
- Built a PPG sensor with electrical components & Python to measure pulse rate in medical tools & fitness trackers

Explore Engineering Innovation, Johns Hopkins University, *Online* June - July 2024
- Completed a 3-credit college course in civil, chemical, electrical, and mechanical engineering, and materials science
- Programmed a game from scratch; performed experiments on Young's modulus and structural design

Mathematics Summer Course, University of Oxford, *England* 2023
- Completed a 2-week Oxford summer course, studying advanced concepts including vectors and quadratic graphing
- Authored an essay on the "History of Algebra," conducting digital research and a literature review

EXTRACURRICULAR ACTIVITIES

Robotics | FIRST Robotics Competition; DAIS 2017 - Present
- Captained Winning Alliances (Rank #1/50) at FRC 2025 Istanbul & Halic Regionals, qualifying for world championships
- Won Excellence in Engineering Award (2025), Engineering Inspiration Award (2025) & Autonomous Award (2023)
- Applied advanced robotics components (sensors, drive systems & power units) to design high-performance robots

Model United Nations 2021 - Present
- Awarded Best Delegate at DAIMUN 2024
- Represented DAIS at The Hague International Model United Nations in The Hague, Netherlands
- Participated in 6 MUN Conferences (JDAIMUN 2021, DAIMUN 2021, 2022, 2023, 2024; THIMUN 2025)

Cricket 2014 - Present
- Member of the School Cricket Team for 3 years of high school
- Participated in the Mumbai Indians Junior Cricket Tournament and ISSO 2023

COMMUNITY SERVICE

Project Lead, Prosthetic Limb Development - "Saksham," Spark Minda Foundation, *Pune* July 2025
- Designed, manufactured & fit 6 prosthetic limbs in patients with lower-limb disabilities (over- & under-knee fixtures)
- Trained in the fabrication process (moulding PoP, heating, cutting, & precision fitting) for comfort & functionality
- Authored a report on joint mechanisms (drop-lock, Stanford-Jaipur knee joints) for future prosthetic development

Tutor, Aakarshan Skill Development Programme - Spark Minda Foundation, *Pune* July 2025
- Taught English and Computer literacy to 30+ rural youth (ages 18–25) to upskill & improve employability
- Delivered 4 tailored English sessions on grammar, conversation, interview prep, and workplace communication
- Conducted 4 computer sessions on spreadsheets, Excel, and basic accounting (Tally)

Robotics Mentor, Abhyudaya & Salaam Bombay, *Mumbai* Aug 2021 - March 2025
- Mentored 6+ FIRST Tech Challenge (FTC) teams from underprivileged communities in robot design and build
- Led weekly sessions on robotics fundamentals, use of sensors, CAD, tools and safe handling of power equipment
- Trained students in presentations and driving, contributing to my FRC team's Engineering Inspiration Award (2025)

SKILLS & INTERESTS

Languages: English, Hindi
Skills: Computer-aided design (CAD), Arduino, NodeMCU Electronics, IoT, Python, C++
Interests: Tennis, Pickleball, Chess, Speech & Drama