SAMRIDHI CHORDIA

+919962539555 • samridhichordia@gmail.com

EDUCATION

APL Global School – Senior in High School, Chennai, Tamil Nadu, India

Coursework:

IGCSE - GPA: 4.0/4.0 - Computer Science, Physics, Chemistry, Mathematics, Advanced Mathematics, English, Spanish, Economics

AS Level - GPA: 4.0/4.0 - Computer Science, Physics, Chemistry, Mathematics, Further Mathematics, English Language

A Level - **GPA: 4.0*/4.0** - Computer Science, Physics, Chemistry, Mathematics, Further Mathematics, English Language

SAT: Scheduled Oct 2025 (Previous SAT Scores: Math 750, Reading & Writing 670)

SKILLS

- **Programming Languages:** Python, HTML, C, Shell scripts
- **Tools and applications:** Visual Studio, Excel, Mathematica, Autodesk
- **Operating Systems:** Linux, Windows, macOS

Founder of StartUp | Lab4All

June 2023 - Present

- Lab4All is an initiative that brings science to life for students in under-resourced communities through hands-on, low-cost water testing kits.
- The kits empower children to test local water quality, understand real-world issues like pollution, and take meaningful action. With two levels—basic testing and sensor-based coding.
- Collaborated with an NGO and distributed 30+ kits.
- Raised about $1500.

Event | AI Startup School, San Francisco, CA

June 2025

- Was chosen to attend a conference for undergrads, graduate students and researchers in CS, ML, Applied Math, and related technical fields.

PROJECTS & INTERNSHIPS

Research | LEGOLAS

July 2024 – Present | Entropy for Energy Laboratory (S4E), Johns Hopkins University, Baltimore, MD

- Developing an automated system to perform chemical experiments, calculate pH readings, and graph the results
- Developed LEGOLAS for a closed-loop variation of a dye-sensitized solar cell (DSSC) experiment. Dye is applied to a semiconducting material; light excites electrons in the dye across the semiconductor's bandgap, producing a current detectable by a multimeter.
- Altered this robot to find the optimum composition of materials that provide the highest Egap values and can be used to conduct experiments for space materials.
- Currently working on publishing a research paper alongside Dr. Oses, Assistant Professor, Johns Hopkins University
- Presented my research to a panel of professors at a seminar at Johns Hopkins

Research Intern | Indian Institute of Technology (IIT) Madras, International Center for Clean Water

May 1 – May 24, 2024 | Chennai, India

- Assisted professors in lab experiments focused on testing and calibrating turbidity and pH sensors.
- Conducted 144 hours of research analyzing sensor components in the VayuJal device, designed to extract water from the air and produce up to 2200 liters daily.
- Prepared and presented a comprehensive research summary, including recommendations to improve the device's efficiency.
- Collaborated with startups to enhance software integration and performance.

Software Development Intern | Rigpa Technologies

April 2024 – Present | Chennai, India

- Developed an AI-powered application for automated content generation.
- Integrated Google Sheets, 11ElevenLabs (text-to-speech), Photoroom (image generation), and OpenAI's ChatGPT (text generation).
- Utilized Python, APIs, and libraries for seamless workflow automation
- Multiple teams actively use the application at a large retailer for digital marketing
- Developed and Tested applications using Python for business analytics for large online retailer

---

COMMUNITY SERVICE

Volunteer | Vayushastra

April 2023 – Present

- Completed a course in aerodynamics.
- Conducted interactive sessions at government schools for underprivileged children, teaching aerodynamics through skits and models for 4 hours weekly.

Volunteer | The Students Sea Turtle Conservation Network [SSTCN]

April 2022 – Present

- Conserve and create awareness about the endangered Olive Ridley sea turtle
- Walked seven kilometres from Neelangarai Beach to Besant Nagar beach and gathered to discuss about turtles and other environmental issues annually

---

PRE COLLEGE PROGRAMS

Summer program | Harvard University, Boston, MA

June 2025 - July 2025

- Completed Quantum Mechanics for Computing Course (college level semester equivalent)
- Wrote an exam final based on these topics
- Awarded Full Scholarship for this Residential program

Student | Johns Hopkins Engineering Innovation, Baltimore, MD

July 1 – July 26, 2024 | Baltimore, MD

- Participated in a college-level program designed for high school students with strong math and science aptitude.
- Engaged in interdisciplinary collaboration with students from various engineering disciplines, including civil, chemical, electrical/computer, mechanical, and materials science.
- Awarded a full scholarship for the program.
- Received 4 college credits for the completion of this course.

Software Developer | Girls Who Code, Online

June 14 – June 28, 2024 | Online

- Completed a 70-hour Summer Immersion Program in game design.
- Gained hands-on experience in cybersecurity, data science, web development, and AI through real-world projects.
- Engaged with engineers and entrepreneurs in skill-building workshops.

RECOGNITION & ACHIEVEMENTS

- **ICE Award:** Recognized for passing at least seven Cambridge IGCSE subjects with honors.
- **Badminton (District Level):** Finalist in three consecutive U18 district championships (2021-2023).
- **Guitar:** Achieved distinction in Grade 5 Trinity.
- **Merit awards:** Physics, Chemistry, Computer Science and Further Mathematics.
- **MUN:** Best Delegate Award (2023)
- **Student Council (2020)** - RCP(Responsible Citizenship Program)
- **IMO (International Math Olympiad)** - World rank holder.