VIDHMAN AGARWAL

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EDUCATION

Pathways School, Gurgaon: Grades 11-12 (2017 - Present)

Relevant Coursework: HL Math Analysis and Approaches, HL Economics, HL Physics, SL Chemistry, SL Hindi B, SL English A Language & Literature

Class 9: 54/56; **Class 10:** 54/56, **Class 11:** 40/42

ACADEMIC HONORS AND AWARDS

- **Highest Excellence Awards** in 6/7 subjects for grades 9, 10
- **IB MYP Board Results Grade 10 Honor Roll**
- **Highest Excellence Awards** in 5/6 subjects for grade 11
- **Winner of the IB DP Mandated Collaborative Science Project** revolving around building water rockets and a base and measuring horizontal distance travelled
- **IEO Gold Medal of Excellence** Grade 9, 10. School Rank 1 for the year 2023

STANDARDIZED TESTING

- SAT - **1560/1600** (Math - **790;** EBRW - **770**)
- IELTS - **8.5/9** (Listening - **8.5/9**, Speaking - **9/9**, Reading -**8.5/9**, Writing - **8/9**)

INNOVATIONS

Founder and Lead Engineer, SoulSound (2024 - Present)

- **Developed a portable assistive communication device** for individuals with speech and hearing impairments, featuring customizable message slots, large tactile buttons for pre-recorded phrases ("Hello," "Help Me," "Bye"), and a power system with up to three months of battery life
- Partnered with **Sarthak Educational Trust** to pilot SoulSound with individuals with speech and hearing disabilities (Demo)

Lead Developer, Project Exoplanet.AI

(2023)

- **Developed an ML-powered exoplanet simulator** that models user-designed solar systems by integrating orbital data, stellar characteristics, and planetary parameters to assess sustainability and the potential for habitability
- Refined the simulator through expert mentorship, receiving feedback from Dr. C.V.S. Kiran (Skyroot Aerospace - India's leading private space launch company)

PRE-PROFESSIONAL EXPERIENCE

Voxomos.AI (2025)

- **Researched Large Language Models (LLMs) and Neural Networks** under the mentorship of **Mr. Sandeep Kumar (Managing Director, Voxomos.AI)**
- Developed a Text-to-Braille Translator aligned with **Bharati Braille** (the standardized Braille system used across South Asia) with the **dictionary-based mapping**, **PDF ingestion and NLP-driven tokenization** and **Multilingual support expansion** to Bengali, Gujarati, Tamil, Telugu, and Malayalam, ensuring wider regional applicability

RESEARCH EXPERIENCE

Independent Published Researcher, Curiex Academic Journal (2024- 2025)

- Published a research paper on **analyzing AI-driven approaches to waste segregation and proposing an integration of computer vision and AI algorithms** to enhance the accuracy of waste categorization, reducing reliance on manual labor in waste management systems

Researcher, Summer Research School, Bulgaria (2024)

- Authored a Review Paper on **designing a mobile autonomous waste segregation robot** and proposed viable features

for the hardware and software to tackle the waste problems in the city of Varna, Bulgaria in a conference held on the last day of the program

STUDENT ORGANIZATIONS/GOVERNMENT

Vice Head of Service, Middle School Council (Grades 6–10)   (2022 –2023)
- Led earthquake relief fundraising, organized cultural events, and adjudicated inter-school debates, fostering student participation and community engagement
- Headed the Climate Change Committee for the IB Festival of Hope and designed promotional materials for its Open Mic event

COMMUNITY ENGAGEMENT

Service as Action, Grade 9 and Grade 11 Annual Camps   (2022, 2024)
- Renovated a local school's facilities in Bhowali, Uttarakhand, by tuckpointing walls, repainting classrooms, and decorating cottages to create a more welcoming learning environment
- Built rainwater harvesting pits in the Ramganga River Valley, Munsiyari, to support sustainable water collection for the local village community

SUMMER PROGRAMS

Plaksha University, Young Technology Scholars Program   (2024)
- Developed **a low-cost integrated health monitoring prototype** combining ECG, temperature, and SpO_2 sensors to create an accessible diagnostic solution for early detection of cardiovascular risks
- **Presented the project at the university's closing conference,** to Dr. Ravi Jasuja (Director, Translational Research & Discovery, BWH, Harvard Medical School; Co-founder, Plaksha University)

EXTRACURRICULARS

Team Debate - First Speaker   2020 - 2023)
- Finalist at Behes 11.0 and Semifinalist at Behes 4.0 & 9.0 National Team Debate Competitions; Quarterfinalist at MahaBehes 2021
- Winner of *Locked Heads* 1.0 and 2.0 School Debate Competitions
- Attended WSDA Slovenia Team Debate Academy 2023
- Quarterfinalists - WSDA Slovenia Debate Competition

Sports

Karate   (2015 - 2023)
- Junior Black Belt Holder; certified by Kaishogun Karate-Do India

ONLINE COURSES

- HarvardX CS50P: CS50's Introduction to Programming with Python

SKILLS

- Proficient in Hindi and English
- Proficient in Python, Markup Languages such as HTML & CSS