

Dhruv Sharma

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uniabilities.com

Education

Dubai College Dubai, UAE	2025 - Present
A Levels: Physics, Chemistry, Mathematics, Economics	Expected 2027
GCSEs: Nine subjects, all graded 8 or 9 (A*)	2025

Awards and Honors

• Best Poster Award, Dubai Science and Engineering Fair - 'Green Energy: Costs and Opportunities'	2025
• University of Waterloo Fermat Mathematics Competition - School Medal Champion and Distinction	2026
• British Physics Olympiad (University of Oxford) - Silver	2026
• PhysicsBowl (AAPT) - Silver	2026
• Royal Society of Chemistry British Olympiad - Bronze	2026
• Pearson Edexcel GCSE High Achiever Award	2025
• UK Mathematics Trust Challenges - Junior Gold; Intermediate and Senior Silver	2020 - 2025
• Duke of Edinburgh's International Bronze Award	2024

Project Experience

Founder, UniAbilities (STEM Education Initiative) India & UAE	July 2024 - Present
• Founded a student-led initiative providing free, simplified STEM and digital-learning resources to underserved communities; reached more than 2,000 children through online and in-person sessions. • Designed and delivered bilingual English-Hindi sessions in logical reasoning, foundational coding, Python and applied science, including classroom engagements at New Era Public School in Munger, Bihar. • Worked with the KCS Foundation to raise funds for a school computer workshop, expanding access to PCs and practical training in Word, Excel and introductory Python.	
Green Energy Transition - Economics & Sustainability Research UAE	Sept 2024 - June 2025
• Authored an independent research paper examining the UAE transition from fossil fuels to renewable and lower-carbon energy, including solar, nuclear and battery-storage pathways. • Analysed economic costs, policy trade-offs, investment implications, energy security and long-term sustainability; presented the work at DSEF and received the Best Poster Award.	
Home Hydroponic Farming System - Physics, Engineering & Sustainability UAE	July 2025 - Present
• Designed and built a working hydroponic system using Arduino, humidity, temperature and light sensors, plus a motorised water-distribution system. • Collected and analysed plant-growth data and iteratively adjusted environmental and nutrient variables to improve system performance.	

Internships and Pre-College Programs

Silal (ADQ-funded) - Sustainability & Agri-Innovation Internship Ras Al Khaimah, UAE	July 2024
• Gained hands-on exposure to large-scale hydroponics, controlled-environment agriculture, fertilizer recycling and water-efficient food production for arid climates. • Explored applied physics concepts including hydrophobicity, surface tension and irrigation design, then used the experience to develop an independent home hydroponics system.	
Greenback Capital Limited - Internship Dubai, UAE	June 2025
• Supported research, Excel-based data organisation and operational workflows within a DIFC-based investment advisory environment. • Gained introductory exposure to capital markets, asset classes, risk-return analysis, client onboarding and the alignment of investment products with client objectives.	

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| Columbia University Pre-College - Evolution of the Universe | July 2025 |
| • Explored cosmology, astrophysics and the large-scale evolution of the universe. | |
| Brown University Pre-College - Habitable Worlds | July 2024 |
| • Studied planetary habitability, exoplanets and the astrophysical conditions that may support life. | |
| Inspirit AI - AI Scholars Program | July 2023 |
| • Completed an AI and computer science program with an astrophysics-focused project component. | |

Extracurricular and Leadership Activities

- Vice President, Physics Society | Dubai College**
- Led practical sessions, demonstrations and discussions for students in Years 7-9, making abstract physics concepts more accessible and engaging.
- Head, Astronomy Club | Dubai College**
- Organises astronomy-focused activities and discussions, encouraging participation and broader exposure to astrophysics and space science.
- Competitive Junior Golfer | Emirates Golf Club / Tommy Fleetwood Academy**
- Competes in Boys A Division events with a 2.8 handicap; achieved a personal-best net 67 (five under par) and Top Net honors.
- Trains under professional coaching and has represented the academy in junior competitions across the UAE.
- Tennis - Competitive Participation**
- Participated in school and club-level tennis, developing fitness, agility and tactical decision-making.

Skills

- STEM & Technical: Arduino, environmental sensors, experimental design, data collection and analysis, introductory Python.
- Education & Outreach: Bilingual English-Hindi instruction, curriculum design, classroom facilitation and science communication.
- Business & Research: Microsoft Excel, structured research, data organisation, capital-markets awareness and sustainability analysis.