

# Yash Gupta

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## EDUCATION

**Step By Step School**, Noida, India;

– *International Baccalaureate Diploma Program, Grade 12;*

2024 – Present

– *Cambridge International General Certificate of Secondary Education*

2022 – 2024

## STANDARDIZED TESTS AND APs

• SAT: Total – 1480; Math – 780; English – 700

2025

• AP Examinations: Microeconomics – 5

## ACADEMIC HONOURS AND AWARDS

**Step By Step School**, Noida, India;

• Topped Geography in IGCSE Board Examinations; received Academic Excellence Award

2024

• Topped Global Perspectives in IGCSE Board Examinations; received Academic Excellence Award

2024

• ICE Distinction Award in IGCSE

2024

*International*

• IMMERSE Essay Competition Winner; Received 50% Scholarship for Summer Course

2023

• HKIMO Gold Award

2025

• AMO Silver Award

2024

• SINGA Silver Award

2024

• HKICO Gold Award

2023

• PIMSO Merit Award

2024

## THE BUSINESS OF MANUFACTURING

*Research:*

2024-2025

**Value Engineering; Laxcon Steels Limited**

– Initiated and directed a value engineering program to fundamentally re-engineer steel manufacturing processes, with the primary goals of enhancing product quality and driving significant cost efficiencies.

– A key success involved devising a novel production method for custom orders by adapting existing machinery, which established a new, profitable service line. Overall, these initiatives resulted in an 80% reduction in product defects, a 20% decrease in fuel consumption, and an increase in material yield to over 99%.

**The State of Manufacturing in India**

– Authored a comprehensive report on the state of the Indian manufacturing sector, conducting primary research to analyze key trends, technological adoption, and strategic responses to market challenges.

– Synthesized insights from in-depth interviews with senior leadership at diverse companies, including Dorset Locks, India Gate, Breathe Easy, Fieldking, Kent RO Systems, and Crystal Crop Protection, to identify core themes in quality control, government policy impact, and supply chain management.

*Online Courses & Certifications:*

• Six Sigma Principles; University of Georgia

2024

• Introduction to Statistic; Stanford University

2024

• Introduction to Operations Management; The Wharton School

2025

• Advanced Manufacturing Process Analysis, University of Buffalo

2025

## VOCATIONAL SKILLS PURSUIT

*Research:*

2024-2025

**The Role of Vocational Training and Industry Collaboration in Enhancing the Human Development Index**

– Analyzed the critical link between vocational training institutes and industry partners in improving employment outcomes, economic growth, and social inclusion.

– Examined global vocational models to demonstrate how skill-based education directly contributes to a higher quality of life and national development.

## **Navigating the Indian Skill-Imparting Ecosystem: An Investigation of Vocational Training as a Workforce Development Strategy**

- Conducted a comparative analysis of India's vocational training framework against Germany's successful dual-system model to identify key areas for policy improvement.
- Accepted for publication in the Social Science Research Network (SSRN); key learnings from the research emphasized the need for stronger industry-academia partnerships and a nationally standardized certification system to improve workforce quality.

### *Outreach & Empowerment:*

#### **Developed Whatsapp Bot to help vocational trainees get jobs**

2025

- Translated academic research on vocational training into a high-impact tech solution; developed a WhatsApp chatbot to bridge the critical employment gap for skilled graduates excluded from traditional job platforms.
- Engineered the end-to-end user experience on the WhatsApp platform, enabling graduates to bypass complex web forms by creating profiles and uploading verified skill certificates through a simple, conversational interface.
- Established a direct hiring pipeline for recruiters by creating a centralized, searchable database of qualified vocational talent, providing graduates with direct and accessible job opportunities based on their verified skills.

## **CLEAN WATER INITIATIVE**

### **Adopt A Filter**

2024-Present

- Developed Adopt A Filter, a sustainable, low-cost (₹600) water purifier using traditional clay pottery with natural cooling properties, and secured key partnerships with Kent RO Systems for filter technology and Ekal Vidyalaya for community distribution, impacting over 5,000 people.
- Achieved national recognition as a Top 40 Finalist in Samsung Solve for Tomorrow (SFT) for the project's innovative impact, and strategically applied to other prestigious platforms including the Diana Award, Ashoka Young Changemakers, and APJ Abdul Kalam Ignited Minds.

## **SCHOOL LEADERSHIP**

### **Cantor Math Club**

2024-Present

- Selected to the organizing committee of the school's advanced mathematics club.
- Hosted bi-weekly stayback sessions to teach and quiz students in Grades 6–10 on advanced topics including Graph Theory, Algebra, and Geometry.
- Helped in organizing math day where students took part in various activities such as treasure hunt, relay race etc.

### **Helios Tech Club**

2023-Present

- Elected as Head of Department (HOD) for CAD for two consecutive years (Grade 11 & 12); achieved first place in the 2022 intra-club CAD competition.
- Spearheaded the annual inter-school Binary Fest, a tech competition for over 400 students, and served as the official judge for the CAD event.

### **Student Council**

2024-2025

- Selected as the Technology Coordinator for the 2024–2025 academic year.
- Managed all technical logistics for major school events, including the annual school fest and CAS Fest, by organizing photography booths and digital projections.

## **STEM EXPERIENCES**

### *Summer Enrichment:*

#### **Yale Young Global Scholars (YYGS), Yale University**

2024

- Selected for the competitive Innovations in Science & Technology track, engaging in advanced coursework in molecular biology, immunology, and astronomy under Yale professors.
- Developed a capstone project proposing the application of magnetic levitation principles from bullet trains to launch space payloads and automate warehouse transport.

#### **Center for Talented Youth (CTY), Johns Hopkins University**

2023

- Completed the "High School Competitive Math I" course, mastering advanced topics in Number Theory, Geometry, and Combinatorics and achieving a final grade of 89%.

#### **Pre-Collegiate Institutes, Stanford University**

2023

- Completed the "Fundamentals of Augmented Reality" course, exploring the applications of AR technology across mobile devices and AI through practical assignments and assessments.

### *Robotics:*

- Actively engaged in competitive robotics since elementary school, designing, speed-building, and programming robots with C++ and Arduino to compete in numerous national tournaments, including the World Robotics Olympiad (WRO), Avishkar, and the RoboClub Tech Fest, winning multiple awards for performance and teamwork.

## **ECONOMICS AND BUSINESS EXPERIENCES**

### *School Clubs & Academic Competitions:*

2024-2025

- Active member of the **Economics Club**, securing 2nd place in an intra-club essay competition and attending workshops on advanced economic topics.
- Achieved a Silver Medal in the GEO and qualified for the regional round of the IFO, demonstrating high performance in national economics olympiads.

### *Investment Competitions:*

2024

- **Wolves of Wall Street:** Managed a \$100,000 virtual portfolio in a two-week global stock market simulation, learning to execute investment strategies in a competitive environment.
- **Wharton Global Investment Challenge:** As team leader, I guided the development of a comprehensive investment strategy and final report to help a client expand their portfolio into Nigerian real estate.

## **EXTRACURRICULAR ACTIVITIES AND OUTREACH**

### **Harvard Project for Asian and International Relations (HPAIR)**

2023

- Participated in the HPAIR Summer Leadership Workshop, receiving targeted, full-day training in leadership, public speaking, and critical thinking.

### **Seva Society (Community Service)**

2022-Present

- Taught a weekly technology class to 30+ students from underserved communities as a member of the Seva Society since 2022, developing and delivering a curriculum covering MS Office and introductory coding (Scratch).

### **Guitar**

2019-Present

- A dedicated guitarist since 2019, I have achieved a Merit distinction in three consecutive examinations (Initial, Grade 1, and Grade 2) through Trinity College, London.

## **INTERESTS**

### **3D Printing**

- I enjoy the entire process of bringing digital concepts into the physical world, from design to execution. My projects range from simple, practical tools to complex models like a 1:15000 scale replica of Lower Manhattan.

### **Travel**

- I'm driven by a curiosity to explore new places and understand different cultures. I value the experience of interacting with local communities and observing the nuances of daily life beyond my own.

### **Coding**

- I like using code to solve everyday problems. For example, I've built several custom study tools and small applications to make learning and other personal tasks more efficient.