

# Ishaan Domkundwar

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## EDUCATION

### **Mahindra International School, Pune, India**

- International Baccalaureate Diploma Programme (IBDP) Grade 11 & 12. *School Highest Scorer in DPI.* 2012 - Present
- International Baccalaureate Middle Years Program (MYP) Grade 6 - 10. *School Highest Scorer in 10th Grade.* 2023 - Present
- International Baccalaureate Primary Years Program (PYP) Grade 1 - 5. 2018 - 2023
- International Baccalaureate Primary Years Program (PYP) Grade 1 - 5. 2012 - 2018

## STANDARDIZED TESTS

SAT: Total - 1590. Mathematics - 800, English - 790 2023

## ACADEMIC HONORS & AWARDS

### *School:*

- Scored highest in school (of 32 students) in 11th Grade achieving 40/42 points in IB DP1 2023 - 2024
- Scored highest in school (of 32 students) in 11th Grade in Math HL, Physics HL, English HL, Chemistry and History. IB Points 7/7. 2023 - 2024
- Scored highest in school (of ~35 students) in IB MYP5 (10th grade), achieving 52/56 IB points. 2022 - 2023
- Scored highest in school (of ~35 students) in 10th Grade external exams in Math, English, Science, Integrated Humanities. IB Points 7/7. 2022 - 2023
- Honor Roll awardee throughout IB Middle Years Program from Grade 6th to 10th and IBDP1 2019 - 2023

### *International:*

- 2025 National Merit Scholarship Semifinalist 2024
- Ranked in the 97th - 99th percentile consistently in the Math NWEA MAP Test. 2015 - 2021
- Ranked 98th Percentile (2017), 93rd Percentile (2018) at SOF International Mathematics Olympiad 2017 - 2018
- Ranked 33rd internationally (99th percentile) at SOF International Mathematics Olympiad 2016

## STEM INTERNSHIPS, RESEARCH PROJECTS & PROGRAMS

### *Projects and Research:*

**BiofuelGPT Internship** at BiofuelCircle, a green energy leader & innovator, Pune India 2024

- Developed BiofuelGPT, an AI-driven natural language bot aimed at educating farmers on converting agricultural waste into new income sources through BiofuelCircle, India's #1 biofuel marketplace.
- Analyzed user data and conducted field research to assess BiofuelCircle's impact on farmers' income and identify barriers to adoption.
- Developed a custom conversational AI (GPT model) to boost farmer engagement, promoting green energy and reducing farm waste burning.
- This initiative also contributed to environmental sustainability by reducing farm waste burning and promoting green energy production.

**AI Safety Research Internship** at SuperAGI, Palo Alto, California, USA 2024

- Conducted research on AI Safety. I investigated the safety limitations of current models and AI systems that we use. Based on these limitations, I proposed three safety frameworks that can improve the current unsafe systems. These were tested by developing an AI system and integrating these methods.
- Authored a research paper (<https://www.arxiv.org/abs/2409.03793>) on AI agent safety based on the above, outlining frameworks to mitigate critical risks in AI applications, enhancing system reliability and security across various contexts.

**Independent Research - LLM Performance**, Pune, India 2024

- Researched Large Language Models under the guidance of a PhD student at MIT. I focussed on improving their logical reasoning capabilities, which I evaluated using arithmetic sequence prediction, as this is something I noticed was a weakness. Evaluated 6000+ sequences to analyze trends.
- Published a research paper detailing methodologies and results, recommending innovative combinations of methods that significantly advance the predictive capabilities of these AI models.

**AI Market Research Internship** at Better Capital, India's largest pre-seed venture capital firm, Pune, India 2023

- Researched the full gamut of AI tools and applications for students, and created a market map to contribute to Better Capital's AI investment thesis.

**Observership** at Flytbase, a drone manufacturing and solutions startup in Pune, India 2023

- Observed drone flight operations, assisted in testing drones for specific requirements, and shadowed a team throughout the process.

### *Summer Programs:*

**University of California at Berkeley - ROAR Academy**, Berkeley, California, USA 2023

- Accepted into UC Berkeley ROAR Summer Academy, where I collaborated with peers to enhance the speed and performance of self-driving racing cars in simulation, gaining hands-on experience in autonomous vehicle technology and advanced robotics. The program was led by UC Berkeley's Dr. Allen Yang, who focuses on AI and Computer Vision research, and his graduate students.
- Our team's solution resulted in a 6-second improvement in the autonomous car's race timing over the previous best. <https://roar.berkeley.edu/past-results/>

**Massachusetts Institute of Technology**, Online 2024

- Completed the MIT Beaver Works Summer Institute (BWSI) Prerequisite Online Course on Autonomous RACECAR, developing advanced skills in autonomous vehicle navigation and programming simulation vehicles for various obstacles and high-speed competition.

**NYU Tandon School of Engineering - SPARC**, New York City, New York, USA 2023

- Accepted into the NYU SPARC program, mentored by PhD candidate Sarmad Mehrdad and Professor Kapila whose research focuses on robotics, artificial intelligence, and engineering. We mastered building advanced circuits and robots and programming them to autonomously solve complex tasks.

## **SCHOOL LEADERSHIP & OUTREACH INITIATIVES**

**MIS Coding, AI, and Robotics Club** at Mahindra International School, Pune, India 2023 - Present

- Founded and ran the Coding and Robotics Club for 3 semesters, sparking interest in robotics among students through hands-on projects in a previously underrepresented field. Built robotics programs for autonomous functions like line following from scratch, fostering skills and passion for programming and robotics in club members.

**Student Council Vice President/Treasurer** at Mahindra International School, Pune, India 2021 - Present

- Elected to the Student Council leadership team out of 5-10 candidates for 3 consecutive years, reflecting strong peer support and trust. Served as the Vice President, leading initiatives to improve policies such as school meals, strategic planning such as the future structure of teaching, and organizing community-building events like the school dance and carnivals. As Treasurer, successfully managed the council's budget and organized fundraising events.

**Peer Tutoring** at Mahindra International School, Pune, India 2022 - Present

- Volunteered and tutored 5 peers and students in High School Mathematics and IBDP Chemistry. Informally assisted many high school students, mainly in mathematics, physics, and chemistry.

**Mathematics Teaching Volunteer** at Doorstep School, Pune, India. 2021 - 2022

- Taught Math to underprivileged children from Doorstep School in Pune, which educates children from the streets, slums, and marginalized communities.

**Tree Plantation & Irrigation** at Hillside Revegetation Service, Pashan, Pune, India 2022 - 2023

- Planted 20+ trees, watered an area of 3+ acres, and assisted local organizations with this initiative as part of a team working at a hillside in Pune.

## **COMMUNITY OUTREACH PROJECTS**

**Rakshak** with Himayat, an award-winning for-profit social enterprise in Pune, India. 2024

- Developed Rakshak, a transformative insurance and benefits package for millions of domestic workers in India creating financial security and improving their quality of life. Conceptualized and named it "Rakshak" (meaning protector in Hindi) to symbolize the project's core mission of worker empowerment.
- Collaborated with Himayat, a social enterprise, and local staffing agencies to tailor and distribute benefits packages directly to domestic workers. This initiative bridged the gap between traditional benefits systems and the unique needs of informal sector workers.
- Partnered with Better Capital and leading fintech/insurtech startups to curate a comprehensive suite of solutions for insurance, savings, and skilling. This collaboration provided me with invaluable insights into the intersection of technology, finance, and social entrepreneurship.

**CodeCoffee**, an edtech startup in Pune, India 2022 - 2024

- Created an edtech startup CodeCoffee, transforming my 10th-grade personal project into a platform that makes coding accessible and engaging for high schoolers through educational videos and quizzes. Established and ran a coding club at our school and am planning to expand to other schools to drive greater impact by inspiring more students to learn programming. URL: [codecoffeecourse.wixsite.com/code](https://codecoffeecourse.wixsite.com/code)

**Tech for Teachers**, Pune India 2023 - 2024

- Launched the Tech for Teachers initiative, co-developing a curriculum to address digital literacy gaps for teachers at local non-profit schools and NGOs.
- Trained 25+ teachers in Google, Microsoft, and web education tools, empowering them to impact 2,500+ students annually with modern, effective, tech-enabled teaching methods.

**Social Impact Internship at Jazz Hands**, a nonprofit leveraging drama and theater to boost English literacy among school children, Pune, India 2024

- Led a strategic initiative for Jazz Hands. Created a plan to resume operations post-COVID, significantly impacting educational continuity and outreach. Performed market research, worked on client feedback, and held customer interviews.

## **SPORTS ACHIEVEMENTS**

**Varsity Basketball, Soccer and Volleyball** at Mahindra International School, Pune, India 2019 - Present

- Basketball: Competed in numerous interschool tournaments. Played the position of Shooting Guard. Won multiple silver medals, underscoring athletic excellence and commitment. Captain in 12th grade.
- Soccer: Participated in 2 interschool tournaments, winning silver, and contributing to team success as a defender.
- Volleyball: Competed in several interschool tournaments, winning gold at a national-level tournament, and displaying dependable skills.

**Club Basketball** at SKP Academy, Pune, India 2018 - Present

- Dedicated to learning basketball since elementary school, developing into a skilled player. Played recreationally as well at Deccan Gymkhana, Pune.
- Competed in 10+ citywide tournaments, gaining valuable experience against highly competitive teams.

## **MUSIC & PERFORMING ARTS**

**Trinity College London** - Rock & Pop Drums Examinations 2017 - Present

- Completed the Trinity College London Rock & Pop Drums program from Initial to Grade 7 (out of 8 total grades). Final Grade 8 in progress.
- Achieved Distinction/Merit in all final exams, evaluated by Trinity College London's faculty.

**Lead Drummer** at Mahindra International School Band, Pune, India, and played at Pune Concerts 2019 - Present

- Performed at numerous school concerts and major events, including graduation ceremonies and annual concerts, and multiple citywide music concerts.

## **ONLINE COURSES & SUMMER SCHOOLS**

**Johns Hopkins Center for Talented Youth (CTY)** 2018 - 2022

- Selected for the CTY program for accelerated learning for gifted students. Courses included: Advanced Web Design (A), Honors Pre-Algebra (A), Honors Algebra-1 (A), Honors Algebra-2 (A-), Honors Trigonometry (A), Introduction to CS and Engineering (A+), Introduction to Web Design (A).

**Abhyasu**, Pune, India 2021 - 2023

- Mastered basic, intermediate, and advanced Python, culminating in a capstone project involving speech and text conversion functions and APIs.

**WiseOwl** 2021

- Completed WiseOwl's "personal finance for high schoolers" program, gaining in-depth knowledge in personal finance financial markets.

## **SKILLS & INTERESTS**

- Fluent in English, Hindi, and Marathi, and intermediate in German.
- A proven flair for mentoring helped me simplify complex topics and explain them to my peers leading to peer tutoring at school.
- Sports enthusiast with a keen interest in Basketball, Formula One racing, American Football, Soccer, and Cricket.
- Passionate about music and exploring diverse genres, all stemming from being a dedicated drummer from an early age.
- Passionate foodie who explores diverse cuisines and cultures, adept at cooking multiple dishes, and engages with culinary arts as a dedicated hobby.