

KANISHK DASGUPTA

Mumbai, India

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EDUCATION

Jamnabai Narsee International School, Mumbai, India

2025 - Present

- *International Baccalaureate Diploma Programme, Grade 12; Class of 2027*

- HL: Mathematics AA, Physics, Chemistry; SL: English A Language & Literature, Hindi B, Business Management

Arya Vidya Mandir, Bandra West, Mumbai, India

2012 - 2025

- *Indian Certificate of Secondary Education (ICSE) Board Examinations, Grade 10*

2025

STANDARDIZED TESTS AND APs

• **SAT:** Total - 1540; Reading and Writing - 770; Mathematics - 770

2026

• **TOEFL iBT:** 6/6

2026

• **AP Examination:** Psychology - 5/5

ACADEMIC HONORS AND AWARDS

• Valedictorian, Arya Vidya Mandir: joint highest ICSE scorer among 300+ students; 99.17% overall and 99.4% best of five

2025

• Best All-Rounder in Grades 9 and 10; sole recipient per batch of 100+ students

2024, 2025

• IB Diploma Programme: 41/42 in Semester 1 and 42/42 in Semester 2, JNIS

2025 - 2026

• CREST Gold Award for the ReMind Badge assistive wearable

• Bronze Medal, INSEF Regionals, for the ReMind Badge

2025 - 2026

• Shortlisted for the second round, S.T. Yau High School Science Award (Asia)

2026

• Fermat Mathematics Contest Distinction (top 25% globally); 3rd highest score in school

2026

• Cayley and Galois Mathematics Contest Distinctions (top 25% globally)

2025

• Silver Medal, Cathedral Mathematics Competition; 4,000+ students from 200 schools worldwide

2024 - 2025

• INFINITY: Grand Finalist from 540 teams / 1,600+ students across 11 countries; Silver in Pass the Baton; helped AVM earn a Top-50 Honor

2024

• Mahindra Talent Scholarship, K.C. Mahindra Education Trust, for academic and non-academic excellence

2023 - 2024

• Grade 10: 1st in prelims (94.83%) and 2nd in midterms (95.12%); top 3 marks in all subjects

• Grade 9: 3rd in finals (94.2%), with top 3 marks in all subjects; 93.7% in midterms

• Grade 8: 3rd in a class of 40; General Proficiency Award for overall excellence in Grades 6 and 7

• ASSET: Outstanding Performance overall; 99th percentile in English, Science and Social Studies

2023 - 2024

• ASSET: Distinguished Performance; 99.8th percentile in English

2022 - 2023

• Certificate of Merit, National Financial Literacy Assessment Test - Junior

2021 - 2022

COMPUTING AND ENGINEERING RESEARCH AND EXPERIENCES

Research and Development:

ReMind Badge - Assistive Wearable for Alzheimer's Disease

Wearable prototype developed with mentor support

- Developed a wearable prototype that identifies familiar faces and everyday objects and delivers spoken prompts, motivated by the difficulties faced by people with Alzheimer's disease and their caregivers.

- Combined a Raspberry Pi 5, camera and speaker with CNN-based face recognition, YOLOv8n object detection and text-to-speech; packaged the system in a 3D-printed enclosure.

- Iterated on image recognition, audio feedback and hardware integration; prototype testing reported approximately 92% face-recognition accuracy and a 1.0-1.2 second response time.

Quantum Computing Textbook and Qiskit Development

Co-author with ISI Prof. Subhamoy Maitra, ISI PhD Suman Dutta and an IIT student

- Modernized legacy Qiskit implementations from the Springer publication *Quantum Algorithms for Cryptographically Significant Boolean Functions: An IBMQ Experience*; improved implementation efficiency by 100%.

- Wrote 35+ exercises, 20+ Qiskit code snippets, explanations and original diagrams for *An Undergraduate Introduction to Quantum Computing*; the undergraduate engineering textbook manuscript has been submitted to Springer.

- Collaborated with an undergraduate student on a companion GitHub-based website to make the textbook's explanations and implementations accessible online.

Teaching and Course Design:

Curriculum Developer and Instructor, Xpertifi Skills Tech

- Launched a free, six-video, one-hour quantum computing course for future engineers; 50+ learners completed it.

- Used analogies, examples and original graphics to explain quantum concepts, engineering aspects and future applications to high-school beginners.

Collaborative Experimentation:

Electrocoagulation Water Treatment - Collaborative Science Project

- Worked in a six-member team; built the treatment model using aluminium-foil electrodes, crocodile clips and a 12 V, 2 A power adapter, demonstrating removal of suspended contaminants from paint-contaminated water.

- Tested and refined electrode configuration, electrolyte concentration, current exposure time and post-treatment filtration through repeated prototype iterations.

LEADERSHIP INITIATIVES

Co-founder and Co-president, Science & Technology Club, JNIS

- Founded the school's first STEM club; recruited 30+ members and led student presentations on science and technology.
- Conducted an AI-literacy session for teachers and organized a data-centre visit to explore carrier-neutral digital infrastructure.

House Captain, Akbar House, Jamnabai Narsee International School

2026 - 2027

- Elected within six months of joining JNIS; led 60+ students in Grades 8-12 across 10+ sports and cultural events.
- Organized team practices for the Annual Athletic Meet, Inter-House Grand Cultural drama competition and other house events.

Geography Club Leader, Arya Vidya Mandir, Grade 8

MUSICAL ACHIEVEMENTS

- 10 years of keyboard study; currently preparing for Trinity Grade 8
- Distinction, Grade 7 Trinity Electronic Keyboard examinations (Classical and Jazz)
- Distinction, Grade 3 Trinity Theory of Music examinations
- 1st Place, Star Quest Music Competition

2023 - 2024

2024 - 2025

COMPUTER PROGRAMMING

- Completed **Python for Everybody** and **Python Data Structures**, University of Michigan
- Completed **Game Design**, California Institute of the Arts; **AI for Everyone**, deeplearning.ai
- **Inspirit AI Scholars Programme**: studied machine learning, linear regression, NLP and computer vision; researched LLM bias under Stanford CS mentor Avash Shrestha and presented findings to 100+ students, parents and teachers
- **Packt certifications**: Python Programming for Quantum Computing; Mathematical Foundations and Quantum Mechanics Essentials; Quantum Computing with Qiskit and Advanced Algorithms
- 24th, Python Advanced category, iCode West Zonal Finals; advanced to the India National Finals
- 1st Place, Neural Dreams (Senior), Gizmo Geeks

2024 - 2025

2024 - 2025

WRITING, PUBLICATIONS AND PUBLIC SPEAKING

Head of STEM Section, The JNIS Herald - School Magazine

- Wrote STEM articles and recruited and coordinated student contributors for the school magazine.

School Blog Team, Arya Vidya Mandir: contributed 10+ articles across the Science and Current Affairs sections in Grades 9-10.

- Runner-Up, New York Times Summer Reading Contest (global)
- Essay on empathy selected for display at the Global Empathy Conference, Prague, Czech Republic
- School-level Gold Medal, Senior Category, Tata Building India School Essay Competition
- Bronze Medals, Royal Commonwealth English Essay Competition
- 1st Place, Vivek Utsav English Elocution Competition
- 1st Place, Intra-AVM English Debate; state-level qualifier, Bal Education Trust Debate Competition

2024 - 2025

2024 - 2025

2024 - 2025

2021, 2023

2023 - 2024

2024 - 2025

TEACH TO LEARN

Volunteer Teaching Assistant, Arya Vidya Mandir, Bandra West

April 2025

- Taught 300+ students in Grades 7-10 across physics, chemistry, mathematics, social studies, languages and physical education.
- Designed interactive lessons, group debates and activities; asked students to explain concepts to three audiences: a five-year-old, a professor and a company through a pitch.
- Volunteered 20 hours per week for four weeks, covering lessons for teachers assigned to ICSE examination marking.

COMMUNITY OUTREACH

Charity and Community Keyboard Performances

- Performed 5+ concerts at old age homes and charity events, including in three bands at Little Sisters of the Poor through The Academy of Music.
- Raised over INR 100,000 through a Bhavyata Foundation online concert for lockdown-affected workers in 2020.

Global Scholars Programme, Arya Vidya Mandir: collaborated on online meetings and projects with students around the world.

MODEL UNITED NATIONS

President, Yuvagam: led 100+ students from three schools.

Chair: G14, International Youth Conference; Ministry of External Affairs, AVM Youth Parliament (Best Committee). Also served as IYC Logistics Head.

- Best Delegate (1st Place), MCMUN
- High Commendation (2nd Place), International Youth Conference
- Best Delegate (1st Place), AVM MUN
- High Commendation (2nd Place), MCMUN
- Verbal Mention, BlueGoldMUN; participated in the World Youth Convention

2024 - 2025

2025 - 2026

2023 - 2024

2023 - 2024

SPORTS

- Athletics: 4 Gold and 1 Silver Medal, JNIS Athletic Meet; 1 Gold and 3 Silver Medals, Intra-AVM Athletic Meet
- Silver Medal, 4 x 100 m relay, Zenith Athletic Meet
- Bronze Medal, Intra-AVM Table Tennis Tournament
- Karate: purple belt

2023

2023

LANGUAGES

- Proficient in English and Hindi; other interests include quizzing, elocution and debate