

# Kartik Nayak

---

Jl. Harmoni, D2, Graha Estetika • Semarang, Indonesia  
nayakartik2008@gmail.com • +62 8988043838

## Executive Summary

Kartik Nayak is a top-ranked A Level student and international math Olympiad medalist with leadership, entrepreneurship, and software development experience across global STEM and educational initiatives. He aims to pursue research in the mathematical and natural sciences and ultimately become a professor at a top Ivy League university.

## Education

### Singapore Intercultural School

High School Diploma

Semarang, Indonesia

August 2022 - June 2026

Relevant Coursework:

- CAIE IGCSE 2024: Additional Mathematics (A\*), Biology (A\*), Chemistry (A\*), Computer Science (A\*), Extended Maths (A\*), First Language English (A\*), Physics (A\*)
- CAIE A Levels 2026: Chemistry, Computer Science, Further Mathematics, Physics, Pure Mathematics
- Advanced Placement: Physics C Mechanics (5/5), Calculus BC (5/5), Computer Science A (5/5), Microeconomics (5/5), Macroeconomics (5/5)
- SAT: 1530 (June 2025)

## Work Experience

### Singapore Intercultural School

Aug 2024 – Feb 2025

#### **Software Developer**

- Designed and developed a user-friendly alumni networking platform, enhancing connectivity among graduates
- Optimized backend architecture to ensure seamless and secure connection of relational databases
- Led UI/UX design to create an intuitive interface and managed continuous improvements with input from the school board

### GSEO (Global Science and Engineering Organization),

Sep 2023 – Present

#### Research Publishing Organization

#### **Founder, CIO**

- Established and led a STEM research journal, reaching across 10 countries and 15+ schools
- Conducted interviews with 15+ top 10 university students and published their research papers
- Developed weekly science articles on rocket propulsion and
- Spread initiatives to 5 countries, including the US, Singapore, Mexico, Turkey, and Croatia

### Star Generation

Aug 2024 – Feb 2025

#### **Mathematics & Science Tutor**

- Provided personalized tutoring in Mathematics and Science, helping primary students improve academic performance by over 40%
- Developed customized lesson plans to address individual learning needs and curriculum requirements

- Simplified complex concepts through engaging explanations, real-world applications, and problem-solving techniques

## ZNotes Education

May 2022 – Mar 2024

### Notes Developer

- Served as the youngest content contributor, developing a new board for Cambridge Checkpoint Mathematics
- Co-created comprehensive educational notes for IGCSE subjects, including Biology, Computer Science, and Physics
- Ensured clarity, accuracy, and curriculum alignment, making study materials accessible to students worldwide

## Student Council

Aug 2021 – Jun 2024

### President

- Spearheaded the first-ever Prom Night, coordinating with internal and external stakeholders, securing \$2000 in sponsorships, and hosting 100+ attendees
- Led a successful school-wide Book Donation Program, fostering a culture of learning and community engagement
- Advocated for student concerns, working closely with faculty to implement meaningful policy changes
- Managed multiple projects while maintaining an excellent academic record, demonstrating strong time management and leadership skills

## Awards & Achievements

- **Indonesia National Award – IYMC 2025:** Secured Rank #1 in Indonesia in the International Youth Math Challenge, placing in the top 5% globally.
  - **Gold Medal – SEAMO X Final Round 2022:** Awarded Gold Medal in the Southeast Asian Mathematical Olympiad, ranking in the top 5% globally among international participants.
  - **Singapore International Math Olympiad Challenge 2022:** Achieved 3rd place globally out of 2,000+ participants; won Gold in the Olympiad Round and Math Master Mind, and Silver in Mind Sports Challenge.
  - **AP Scholar with Distinction – College Board 2025:** Recognized for outstanding performance in Advanced Placement exams, with scores of 5 in five or more subjects.
- Valedictorian – SIS Semarang:** Consistently ranked first in class, receiving the Academic Excellence Award for over 7 consecutive years.

## Skills & Interests

- **Technical:** Python, Java, HTML/CSS/JavaScript, SQL, Machine Learning & Artificial Intelligence
- **Tools:** Notion, Canva, Microsoft 365, various AI Tools
- **Language:** English (Fluent), Hindi (Fluent), Indonesian (Fluent), Konkani (Native)
- **Interests:** Machine Learning, Financial Technology, Aerospace Engineering, Mathematics Research