

NGUYỄN HUỲNH ĐĂNG NHỰT

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Citizenship: Vietnam



Academic Profile

I am particularly interested in the intersection of Computer Science, Artificial Intelligence, and applied mathematics for real-world problem solving. My current interests include computational modeling, optimization, machine learning fundamentals, and AI-assisted research workflows. I hope to further explore how intelligent systems can support scientific discovery, productivity, and human-centered technological development.

Research Interests

Mathematics, computer science, combinatorics, probability theory, computational modeling, artificial intelligence, scientific reasoning, algorithmic thinking, and interdisciplinary applications of mathematics, physics, and computation in renewable energy systems.

Education

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| 2023 – Present | Nguyễn Khuyến Secondary and High School — Vietnam
Specialization: Mathematics, Physics, and Chemistry
Grade 10 — GPA: 8.83 / 10.00 (Math: 9.0; Physics: 8.9; Chemistry: 8.8)
Grade 11 — GPA: 8.93 / 10.00 (Math: 9.4; Physics: 9.3; Chemistry: 9.1)
Grade 12 — GPA: 9.29 / 10.00 (Math: 9.5; Physics: 9.5; Chemistry: 9.3)
Relevant coursework: Mathematics, Physics, Informatics, English. |
| 2019 – 2023 | Đất Đỏ Secondary School — Vietnam
Completed lower secondary education. |

Honors and Awards

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| 2026 | Second Prize — City-Level Academic Excellence Competition (Physics) |
| 2023 | First Prize — Provincial Round of the Vietnam Science and Engineering Fair (ViSEF)
Second Prize — Provincial-Level VIFOTEC Competition
Encouragement Prize — 24/07 Olympic Competition (Physics)
Outstanding Young Pioneer Member — Ho Chi Minh Communist Youth Union |

2022	Third Prize — Provincial Round of the Vietnam Science and Engineering Fair (ViSEF) Encouragement Prize — Provincial-Level VIFOTEC Competition Encouragement Prize — 24/07 Olympic Competition (English) Outstanding Young Pioneer Member — Ho Chi Minh Communist Youth Union
2021 – 2023	Vice President, Ba Ria–Vung Tau Provincial Children’s Council
2019	IvyPrep Voice of Scholarship for Students (Ages 11–15)
2019	National Delegate, 6th National Children’s Forum Vietnam

Research Experience

2024 – Present	Independent Study in AI-Assisted Research Workflows Exploring the use of artificial intelligence tools for literature review, information synthesis, scientific writing support, problem decomposition, and workflow optimization. Focused on improving efficiency in learning and research through structured digital methods.
2023 – Present	Science and Physics Project Work Developed theoretical and experimental projects related to concentrated solar energy, engineering applications, and scientific problem solving.
2022 – 2025	Energy and Space Science Projects Worked on research-oriented projects involving concentrated solar power technologies, renewable energy solutions, and aerospace engineering concepts. Focused on system design, energy efficiency, and theoretical applications in aviation and advanced transportation.
2019 – 2023	Social and Behavioral Research Projects Participated in social and behavioral initiatives under programs associated with UNICEF, focusing on youth development, educational outreach, and community engagement activities.

Projects

2025 – Present	Focumia Developed a productivity-focused application for concentration management, task organization, and daily workflow efficiency. Repository: github.com/DangNhutNguyen/Focumia
2025	PromptTEA Built an AI-assisted project exploring prompt engineering, learning support, and workflow automation with large language models. Repository: github.com/DangNhutNguyen/PromptTEA

2024	Neural Network from Scratch Implemented neural networks from scratch to study machine learning fundamentals, backpropagation, and optimization methods. Repository: github.com/DangNhutNguyen/Neural-Network-from-Scratch
2024	MNIST Neural Network Training Project Trained machine learning models for handwritten digit recognition using the MNIST dataset and explored model optimization techniques. Repository: github.com/DangNhutNguyen/MNIST-TRAINING
2024 – Present	AI Applications for Research Efficiency and Time Optimization Used AI tools to improve research efficiency, information synthesis, and workflow management.
2023 – 2025	Concentrated Solar Power System for Sustainable Electricity Generation Proposed a concentrated solar power approach for cleaner, lower-cost, and more sustainable electricity generation. Project demonstration: bit.ly/SolarProject-dangnhutnguyen
2022	YouTube Animation Storytelling Channel Created animated storytelling content on social issues and personal growth for the PencilBooTalking channel.
2019 – 2020	Research Project on the Impact of Drug Abuse on Children Conducted research and awareness activities on the social and psychological impact of drug abuse on children.

Technical Skills

Programming	Python, C++, JavaScript, Java
Mathematics	Combinatorics, probability, mathematical reasoning, problem solving
Software	L ^A T _E X, Git, VS Code
Languages	Vietnamese (native), English (IELTS 6.0: L 6.5, R 6.0, W 5.5, S 5.5)

Extracurricular Activities

2024 – Present	Independent Writing Projects Authored long-form independent manuscripts exploring artificial intelligence, productivity systems, human cognition, and interdisciplinary approaches to real-world problem solving through analytical and research-oriented writing. Selected Works: bit.ly/LogicPT-GT ./ bit.ly/AIAPE-Education
2023 – Present	Leadership, CodliRo – Code Like Professional Contributed to a student-led programming and technology community focused on computational thinking, collaborative learning, and software development. Supported educational activities, peer mentorship, and STEM-related initiatives.

- 2022 – Present Academic Competitions and Research Activities
Participated in science and academic competitions including ViSEF, VIFOTEC, and provincial excellent student competitions. Conducted independent research and interdisciplinary STEM-related projects.
- 2021 – 2023 Vice President, Ba Ria–Vung Tau Provincial Children’s Council
Selected to represent youth voices in provincial discussions and child advocacy initiatives. Participated in leadership activities, youth policy discussions, and community engagement programs focused on children’s rights and education.
- 2019 Delegate, 6th National Children’s Forum Vietnam
Represented provincial youth in national discussions regarding child rights, education, social responsibility, and public participation initiatives.