

NGUYEN PHUC NHAN

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EDUCATION

High School for The Gifted, VNUHCM (Pho Thong Nang Khieu)

2022 - Present

• GPA:	Grade 9: 9.7/10.0	Grade 10: 9.5/10.0	Grade 11: 9.7/10.0	Grade 12 - S1: 9.7/10.0
• Standardized Scores:	IELTS: 7.5	SAT: 1520		
• AP:	Calculus BC: 5	Statistic: 4	Computer Science A: 4	

HONORS AND AWARDS

- **Gold Medal** - AI JAM ASIA Online Competition 2024, Hacker Dojo, Silicon Valley, US for Smart Car Parking Optimization Project | 2024 | [Link](#)
- **Gold Medal** from the International Invention Show – INOVA for Intelligent Oil-Collecting Robot for Marine Environments | 2024 | [Link](#)
- **Represented Vietnam** in Maker Robotics Challenge 2024 International Open Thailand | 2024 | (Robotics) | [Link](#)
- **Special Prize** in Material Science Research 2023, for a research topic on Transparent Conductive Thin Films Based on Gallium-Doped Zinc Oxide | 2023-2024 | [Link](#)
- **Third Prize** in the Ho Chi Minh City Excellent Student Contest in Physics | 2020 - 2021 | [Link](#)

LEADERSHIP

- **Founder | Blue Legacy Club | [Facebook](#)** May 2023 - Present
A project aimed at raising community awareness and conducting activities to preserve marine ecosystems.
 - Developed oil slick suction equipment capable of cleaning **50 liters** of oil from the sea surface
 - Led marine environmental protection efforts with **100+ volunteers**, organizing **3 beach clean-ups** and painting **3 sea walls** to promote coastal conservation.
 - Organized environmental education activities for **200+ children** in Nha Trang.
- **Co-Founder/Head of Media | IniFacts | [Facebook](#)** May 2024 - Present
A Facebook community focused on delivering in-depth knowledge in technology and science, promoting learning and innovation through carefully curated educational content.
 - Attracted **1200+ followers** and **5,000+ views**, achieving **500+ interactions** per post within **4 months**.
- **Senior Core member | PRISEE - Division of knowledge & practical training | Academic Project | [Facebook](#)** 2024 - Present
*A science community of **140 members** providing interdisciplinary collaboration, peer mentorship, and research exploration in science and technology.*
Main duty: Led a team of students to manage documentation, organize workshops, and liaise with universities and educators to secure research opportunities and partnerships.
 - Connected Vietnamese high school students with research experts to enhance scientific literacy and inspire the next generation of researchers.
 - Developed and led 6 seminars/workshops with **400 students** and **5 experts** on research methods, question formulation, literature reviews, and lab safety.
 - Collaborated with VietAI to deliver a 3-month course on Machine Learning, NLP, and Computer Vision to **100 students** from **30 institutions**.
 - Designed a research program connecting **120 high school students** with **40 experts** across **18 institutions**, facilitating university-level internships, evaluations, and student admissions.
 - Coordinated networking events, engaging **125 students** with accomplished PhD alumni from around the world.
 - **INSPIRE Project (Science & Community):** Coordinated a science project with **20 clubs** and **50 experts** from **32 institutions**, raising **\$400** for community outreach.
 - **INSPIRE Eco-Empathy:** Led a charity internship for hospitalized children, overseeing **24 sessions** with **90 volunteers**, raising **\$4,800**.
- **Member - Specialized department | Physis + Tran Dai Nghia High School for the Gifted | [Facebook](#)** May 2022 - May 2024
A physics and science club dedicated to building a vibrant community for young science enthusiasts.
 - Acquired proficiency in 3D color printing and facilitated workshops on 3D printing and Arduino for students citywide, fostering community engagement in STEM

PERSONAL DEVELOPMENT PROJECTS

- **Engineer | Research product : Smart Car Parking Management System | [Link](#)** 2024
 - Optimized parking experiences by integrating AIoT, cloud computing, and web/mobile applications
 - **Achievements:** Estimated to **reduce average parking time by 50% in urban settings**, significantly improving efficiency.
 - **Engineer | Product: Development of movable lifebuoy for rescue | [Link](#)** 2023 - 2024
 - Designed a 3D-printed, engine-powered lifebuoy with autonomous control using YOLOv8 image recognition and PID algorithms
 - Guided by real-time drone-captured visuals for efficient victim rescue and return.
 - **Achievements:**
 - Product capable of navigating underwater in varied conditions; ongoing testing has shown effective performance and stability in controlled rescue scenarios.
 - Successfully delivered aids in flooded areas during testing sessions.
 - **Engineer/Developer | Research product: Oil-Skimming Device for Water Surfaces | [Link](#)** 2024
 - Developed a device to skim oil from water surfaces, supporting coastal fishing villages in reducing environmental impact.
 - **Achievements:** Device trials demonstrated practical effectiveness, aiding coastal fishing communities in reducing pollution and supporting marine conservation.
 - **Developer | Research product: GreenEdu Application | [Link](#)** 2024
 - Developed educational software with interactive lessons to teach children about environmental conservation, climate change, and sustainability
 - **Achievements:** Prototype completed, launched demo and trials at High School for The Gifted, VNUHCM to collect users' feedback for improvement
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WORKING EXPERIENCE

- **Intern researcher | PTNK Research Innovations in Science and Engineering HCMCity | [Link](#)** Jun 2023 - Jan 2024
 - Research and Fabrication of Transparent Thin Films with Electrical Conductivity based on Synthesized and optimized gallium-doped zinc oxide (GZO).
 - **Achievements:**
 - *Improved its optoelectronic properties: achieving a resistivity of $6.55 \times 10^{-3} \Omega \text{cm}$, carrier concentration of $3.5 \times 10^{19} \text{ cm}^{-3}$, electron mobility of $32.18 \text{ cm}^2/\text{Vs}$, and an average visible transmittance over 80%. Results indicate GZO_3.5% film's potential as a transparent electrode for optoelectronic applications.*
 - *Special prize in Material Science Research 2023.*
 - **Intern researcher | PTNK Research Innovations in Science and Engineering HCMCity | [Link](#)** Jun 2024 - Jan 2025
 - Research and Fabrication of Transparent Conductive Thin Films with Electrical Conductivity based on Synthesized and optimized Aluminum-doped Zinc oxide (AZO) (3-5% Al).
 - **Achievements:**
 - *Identified Al 4% as optimal for ZnO thin films, achieving $6.327 \times 10^{-4} \Omega \cdot \text{cm}$ resistivity, $19.90 \text{ cm}^2/\text{Vs}$ mobility, 81.99% transparency, and $0.782 \mu\text{W}/\text{mK}^2$ power factor at 235°C for TCO applications.*
 - **Researcher and Co-author**
Published Research Paper: Detection and recognition of rice leaf diseases using deep neural networks | [Link](#) Jun 2024 - Jan 2025
 - Developed an AI-based solution for early detection of rice diseases using YOLOv8 for detection and DenseNet-121 for recognition.
 - Achieved **93% accuracy** on Kaggle and **96%** on a **Vietnamese dataset**, improving diagnosis accuracy for rice leaf disease
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VOLUNTEER ACTIVITIES

- **Founder and leader | "Trung thu cho em" Charity Project | [Link](#)** 2023 - 2024
 - Fundraised for Anh Sang Orphanage, organized a Mid-Autumn lantern-making event for **30 children**, and donated **\$1,000** for essentials, including school supplies and food
 - **Vice President | Cybetech Assemble | [Facebook](#)** 2023 - 2024
 - Led initiatives to increase IT access for children in remote areas; raised **\$400** to support education and technology in Tien Giang City. Created a fan page reaching **2,000+ followers**, and organized hands-on field trips for **30+ members**, including an astronomy visit at a meteorological station.
 - **Volunteer | Ho Chi Minh City Optical Association | [Link](#)** 2023 - 2024
 - Assisted in eye examinations for over **200 participants** at the beach city - Binh Thuan. Distributed **100 pairs of glasses** to those in need.
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SKILLS AND INTERESTS

- **Hobbies & Skills:** Playing guitar, Playing chess, C++, Python, JavaScript
- **Sports:** Basketball, Badminton