

TUAN A. HOANG

Quang Ninh, Vietnam • +84-972-878-786 • fisher.hoang@gmail.com

Education

Ha Long High School for Gifted Students	Ha Long
Grade 9 GPA: 9.x	Sep 2024 - June
Grade 10 GPA: 9.x	2027
Grade 11 GPA: 9.x	

Standardized Tests

IELTS: 8.0	Mar 2026
SAT:	xxx 202x

Honors & Awards

Gold Medal Innovation and Creativity Prize Competition (ICPC)	2026
Project: "Sign Language Recognition Using Computer Vision."	
Chemistry Research Intern Hanoi University of Science and Technology (HUST) Laboratory	2026
Completed an intensive research internship in advanced chemistry, gaining hands-on expertise in laboratory instrumentation, chemical synthesis, and quantitative analytical techniques.	
Grand Award & Gold Medal World Invention Creativity Olympic (WICO)	2026
Project: "Analyzing the Impact of Acid Rain on Nutrient Retention in Agricultural Soil and Proposing a Sustainable Management Strategy Using Native Amendments"	
Gold Award AXGO Competition	2026
Project: "Investigation of Anti-inflammatory Activity and Formulation of Herbal Hydrogel from Sambucus javanica for the Relief of Joint and Muscular Swelling"	

Research Experience

Co-Author Genetics and Molecular Research (GMR)	Aug 2026
Paper: Biofilm-Mediated Interactions Between Microplastics and Trace Metals in Aquatic Environments: From Sorption and Remobilization to Ecological Risk - [Link]	
Highlights:	
- Synthesized multidisciplinary findings on microplastic-metal interactions and biofilm-mediated surface chemistry. - Proposed a dynamic model describing sorption-desorption cycles and ecological risk pathways in aquatic systems. - Advanced understanding of environmental aging and contaminant transport mechanisms relevant to marine pollution studies.	
Co-Author Genetics and Molecular Research (GMR)	2026
Paper: Effects of Household Organic Waste Substrates on Black Soldier Fly Larval Performance and Bioconversion - [Link]	
Highlights:	
- Mixed organic waste (Group C) achieved the highest dry-matter reduction at $83.54 \pm 0.79\%$, outperforming animal waste (75.41%) and vegetable/fruit waste (63.23%). - Animal-derived waste (Group B) yielded the highest fresh biomass (439.6 ± 14.4 g/container) and largest larval length (2.90 ± 0.09 cm). - Group B larvae also recorded the peak NaOH-extractable soluble protein content at $47.79 \pm 1.04\%$ DM	

Personal Project

Lead Author / Co-Author | Optimization of Aqueous Enzymatic Extraction of Oil from Waste Coconut Pulp Residue: Application in a Local Circular Economy Model

2026

- Aqueous Enzymatic Extraction (AEE) Optimization:** Engineered a low-cost, eco-friendly AEE protocol utilizing Cellulase and Papain to upcycle agricultural waste into high-quality virgin coconut oil under mild thermal conditions (55°C).
- Synergistic Yield Maximization:** Achieved an absolute peak oil recovery of 0.41 mL/g using a dual-enzyme formulation (1000 U/g Cellulase + 500 U/g Papain, 3-hour incubation)—delivering a nearly 14-fold yield increase over enzyme-free controls.
- Process Mechanism & Circular Economy Application:** Elucidated the sequential degradation mechanism (cell wall breakdown followed by protein demulsification) to eliminate the high capital requirements of machinery for local, small-scale biorefineries.

Leadership Experience

President & Founder | Ha Long High School for the Gifted Pickleball Club

2025 - present

- Leadership & Strategy:** Founded and led the school's inaugural Pickleball Club, establishing operational guidelines, training schedules, and court reservation systems for 40+ active student members.
- Coaching & Skill Development:** Organized weekly training sessions and skill workshops on game fundamentals, advanced strategies, and sportsmanship, elevating overall student participation in racquet sports.
- Tournament Management:** Coordinated inter-school friendly matches and intra-club tournaments, securing equipment sponsorships and managing event logistics from venue preparation to match scheduling.

Social Work & Activities

Field Volunteer | "Warm Winter 2025" Humanitarian Campaign

2025

- Collaborated with local charity groups to mobilize, pack, and distribute essential winter welfare packages, thermal blankets, and academic supplies to disadvantaged children and families in remote mountainous regions.

Community Volunteer & Field Coordinator | Green Horizons Tuyen Quang Project

2026

- Managed local distribution channels and field logistics to deliver essential welfare packages and educational supplies to 100+ low-income households in rural Tuyen Quang.
- Co-led interactive environmental awareness sessions and sustainability workshops for local primary school students, promoting waste management and green living practices.
- Assisted field teams in assessing community needs, coordinating local volunteer workflows, and facilitating communication with local authorities to maximize project impact.

Skills & Interests

Technical & Laboratory Skills: Computer Vision (OpenCV), Artificial Intelligence (AI) Modeling, Analytical Chemistry, Organic Synthesis, Environmental Soil Analysis, Extraction Protocols & Bio-refinement (Circular Economy Applications).

Soft Skills & Leadership: Executive Project Management, Community Outreach, Field Operations & Logistics, Event Organization, Team Leadership.

Languages: Vietnamese (Native), English (Proficient/Academic).

Interests: Pickleball (Club President & Athletics), Environmental Sustainability & Circular Economy, Applied Biotechnology, Community Service & Rural Welfare.