

# DONG NHAT DIEM MY

Ho Chi Minh City, Vietnam

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## EDUCATION

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### Tran Phu High School

HCMC, Vietnam

11<sup>th</sup> Grade GPA: 8.6/10

Aug 2023 - Present

10<sup>th</sup> Grade GPA: 8.7/10

- Activities:
  - Participated in STEM-focused group projects, leading technical planning and task coordination.
  - Selected for the school's English Gifted Team to prepare for the 2026 city-level academic competition.

## EXTRACURRICULAR ACTIVITIES

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### Samsung Innovation Campus – Big Data Course

*Participant*

Jun 2025 – Present

- Enrolled in instructor-led Big Data curriculum covering Linux, Docker, VirtualBox, Hadoop ecosystem (HDFS, MapReduce), Apache Spark, and data processing tools.
- Mentored by industry professionals, preparing a capstone project to earn Samsung certification.
- Strengthening technical foundations in large-scale distributed data systems and environment configuration.

### AIIESEC – Wave Vietnam Project

*Student Ambassador*

Aug 2024 – Jan 2025

- Promoted leadership and SDG-focused initiatives to high school communities.
- Trained in logistics, sales, operations, and visual design; provided weekly updates on performance and goal establishment during cross-functional meetings.
- Coordinated team-wide brainstorming and communication flow.
- Awarded “Best Ambassador” for outstanding coordination and commitment.

### VORC 2024 – Vietnam Open Robotics Challenge

*Participant*

Jun 2024 – Jul 2024

- Gained foundational experience in robotics through project-based challenges.
- Acquired basic skills in AutoCAD and hands-on robotics engineering.
- Practiced team management and technical planning under competition pressure.

### Tran Phu AI Club

*Member*

Dec 2023 – May 2024

- Studied fundamental machine learning models (Decision Trees, KNN, K-Means) using Scikit-learn.
- Collaborated on small-scale projects under guidance of university-level mentors.
- Developed a newfound interest in AI to solve social challenges.

## The Classofus Project

*Volunteer Designer*

Aug 2023 – Jan 2024

- Designed multilingual media (Chinese, Spanish, French) for youth-focused education content.
- Applied Adobe tools and layout strategies to improve digital engagement.
- Attended weekly French sessions to broaden linguistic and cultural perspectives.

## RESEARCH EXPERIENCE

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### Real-Time Motorcycle Helmet Violation Detection Using YOLOv8

HCMC, Vietnam

*Advisor: Ms. Nguyen Thi Tha (Physics Department)*

May 2024 – Feb 2025

- Conducted a supervised research project applying YOLOv8 in computer vision to identify motorcycle riders violating helmet laws.
- Built a real-time object detection system with a custom-labeled dataset with over 6,000 images, using Python, OpenCV, and PyTorch. Applied Region of Interest (ROI) filtering to reduce noise and non-target detections.
- Evaluated model performance using precision, recall, and F1 score distribution across validation/test sets. Analyzed prediction behavior through false positive/negative cases and multi-condition testing.
- Documented findings in a formal research report following structured methodology (hypothesis, literature review, experimental design, results, discussion).
- Achieved 94.7% precision and 96.1% recall, project then submitted to the school science competition and awarded 2nd runner-up.

## HONORS & AWARDS

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### Wave Vietnam Project – Honored as the Best Ambassador

Jan 2025

*Recognized for outstanding engagement and leadership in youth development initiatives.*

### Tran Phu High School – 2nd Runner-Up in Science Research Competition

Oct 2024

*For research on real-time motorcycle helmet detection using YOLOv8.*

### Immerse Education Essay Competition – 10% Scholarship

Oct 2023

*Awarded for essay on “Computer Science in Solving Refugee Issues”.*

## SKILLS

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- Programming: Python (project-based), OpenCV, Roboflow, Scikit-learn
- Big Data: Hadoop (HDFS, MapReduce), Apache Spark, Docker, VirtualBox, Linux command-line
- Research: Data annotation, data evaluation, academic writing
- Software: AutoCAD (basic), Canva (intermediate), Adobe Illustrator (basic), MS Office
- Soft skills: Scientific reading, teamwork, cross-cultural communication

## **ACADEMIC INTERESTS**

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- Artificial Intelligence & Machine Learning: Interested in applying AI to tackle real-world challenges in safety, education, and health.
- Data Science & Research Methodology: Passionate about extracting insights through data collection, pattern analysis, and evidence-based thinking.
- Psychology & Philosophy: Fascinated by how human thought systems evolve, and how ethical frameworks shape scientific inquiry.

## **LANGUAGES**

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- Vietnamese – Native
- English – Professional working proficiency
- Spanish – Elementary proficiency

## **REFERENCES**

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Available upon request.