

# TRAN MAC DANG DANH

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24B, 64/67 Thai Thinh, Dong Da, Ha Noi

## EDUCATION

**Nguyen Truong To Secondary School** 2021-2022

**GPA** 9th Grade: **9.6**

**Kim Lien High School** 2022-2025

**GPA** 10th Grade: **9.4** 11th Grade: **9.5**

### **Standardized Test Scores**

- IELTS: **8.0** (Reading: 9 | Listening: 9 | Writing: 7 | Speaking: 6.5)
- SAT: **1540** ( Math: 790 | Verbal: 750)
- AP Calculus BC: **5** | AP Computer Science A: **5**

## HONORS AND AWARDS

1. **Gold Medal - International Innovation Show INNOVA in Croatia** 2024
2. **Gold Medal - AIJAM US** 2024
3. **2nd prize for District excellent student at Physics**  
2021
4. **3rd prize for City excellent student at Physics** 2021
5. **Golden Medal - AIGC** 2022
6. **1st prize for School excellent student at Physics** 2022

## PERSONAL PRODUCTS & RESEARCH

1. **Main Author**, *Landslide detection system* 2024
  - Developed a landslide detection system using Arduino to monitor terrain stability and provide early warnings.
2. **Co-author**, *Improvements of the classification of flowers using deep neural networks with various solver optimization algorithms - IEEE XPlore Journal - to be published in 2025.* 2024
  - Designed deep neural networks for precise classification of flower species through advanced image analysis
3. **Developer**, *Parkinson Spoon for Hand Tremors* 2022
  - Designed a stabilizing spoon to assist individuals with hand tremors using Arduino.
4. **Developer**, *Intelligent Oil-Collecting Robot for Marine Environment* 2024
  - Developed an intelligent robot for efficient oil collection in marine environments.
5. **Developer**, *Smart History Guide* October, 2024 - Present
  - Researching Smart History Guide, platform for learning Vietnamese history through interactive and engaging content.

6. **Team Member**, *Melanoma Cancer Prediction Project* October 2023 – April 2024  
*1 IDEA 1 WORLD International Innovation, Design, and Startup Competition, Turkey*
- Developed a predictive model for early melanoma diagnosis using 10,000+ images, enhancing accuracy with modified EfficientNetV2 models.
  - Earned recognition at the 1i1w competition for innovative cancer diagnostics, emphasizing early detection to improve patient outcomes.
7. **Developer**, *AI JAM 2024, United States, Project: "AIoT Air Quality Monitoring"* August, 2024
- Developed an AI and IoT-based system for real-time air quality monitoring and analysis, contributing to environmental health and safety.

## **LEADERSHIP**

- **Socialet - Head of Logistic Department** May, 2023 - Present
  - Led a group of 24 members of the department and other members of the project to run a fundraising which created a profit of 2 million VND.
- **The Learcult - Vice-Head of Logistic Department / Co-founder** August, 2023 - Present
  - Team work to design the identity ( logo, slogan, avatar) for the fanpage.
  - Direct a total of 40 members of the project.

## **SOCIAL WORK & ACTIVITIES**

1. **Tuyen Quang High School for Gifted Student** July, 2023
  - Educated young children with knowledge about programming and STEM.
  - Inspired and instructed 36 young students to finish their first project with the Arduino system.
2. **Ha Noi Social Protection Center 2**  
March, 2024
  - Donated gifts and cash for nearly 300 patients.
3. **Ams Media - Active member** December, 2023 - Present
  - Collaborated with other members to run a fundraising which created a profit of 5 million VND for a charity trip to Viet Duc Hospital.
4. **High School's Help Kit - Active member** February, 2024 - Present
  - Assisted in an event advising secondary school students about high school entrance exams.
  - The event attracted nearly 1,000 attendees and was featured on national television.
5. **BKSTAR - Assistant teacher**
  - Provided support for students in AP Calculus BC and AP Computer Science A course.
6. **Hoa Binh Orphanage Village - Volunteer** September, 2024
  - Lead a team of 20 volunteers to set up a charity trip for 50 children with Down syndrome.

## **SKILLS**

- **Programming Languages:** Python, Java (AP Computer Science A), C++ (Arduino programming).
- **Hardware and Electronics:** Arduino, Embedded Systems Development, Sensor Integration.