TON THAT THANH TUAN

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Objective

- I am a student, currently studying at Phu Nhuan High School - Ho Chi Minh City with a strongest interested in Artificial Intelligence Research. I'm eager to contribute to real-world projects to learn from diverse peers while applying my academic foundations to practical problems. My goals are to deliver useful outcomes, broaden my perspectives, and build long-term professional relationships within a collaborative, globally minded team.

EDUCATION

- **Level of education**
  Phu Nhuan High School (2024-2027)
  University of Technology - Viet Nam National University (06/2025 - 09/2025)

PROJECTS

- **Receipt Recognition - Main Author and Leader** Link Github
  • Built an end-to-end receipt OCR pipeline: YOLO for receipt detection, DBNet for text detection, SVTR for text recognition; benchmarked on SROIE (ICDAR 2019).
  • Implemented pre/post-processing (denoise, perspective correction, cropping; regex/heuristic field matching) and exported structured results (JSON/CSV)..
  • Exposed a PySide6 GUI.
  • Added evaluation scripts (precision/recall/F1, CER/WER) and ablation studies; optimized throughput via batching and async I/O.

- **HCMC AI Challenge 2025** Github
  • Ho Chi Minh City AI Challenge 2025, in its fifth edition, focused on advancing event retrieval for large-scale video collections. The challenge provided a dataset of 1,471 videos (328 hours) with diverse query formats to evaluate realistic performance. Teams addressed complex temporal and semantic queries using deep learning, temporal segmentation, and multimodal fusion techniques. Visual Known-Item Search achieved the best results, highlighting the effectiveness of rich visual information.

- **HCMC Science and Engineering Fair**
  • This study presents an intelligent monitoring and assistance system for visually impaired individuals and elderly people. The proposed system integrates computer vision, deep learning, and IoT technologies to support safe navigation and daily activities. Object detection is performed using the YOLOv11 model, while distance estimation is achieved with the Depth Anything V2 model. Additional sensors, including heart rate monitoring, fall detection, and GNSS positioning, enhance user safety and real-time support. Experimental results in both bright and low-light environments show high accuracy (90–100 percent), demonstrating the feasibility and reliability of the proposed system for real-world assistive applications.

ACHIEVEMENTS & SIGNIFICANCE

- **Potential Award – Ho Chi Minh City Artificial Intelligence Challenge 2025**
- **Participated in the National Round Qualifier of the Science and Engineering Fair 2025**
- **Second Prize – Ho Chi Minh City-Level Science and Engineering Fair 2025**
- **Potential Award - Iran Geometry Olympiad 2024**
- **Third Prize – Ho Chi Minh City Excellent Student Competition in Mathematics 2024**
- **Third Prize – Ho Chi Minh City Handheld Calculator Mathematics Competition 2024**

SKILLS

- **Skills Category (ex: Languages)**
  C++, Python
- **Libraries/Frameworks**
  Flask, Pandas, Numpy, sklearn, matplotlib, opencv
- **Databases**
  MYSQL, MongoDB
- **Other Skills**
  Data Science and Analysis, Machine Learning, Quantum Computing

Significant Roles

- **President of Phu Nhuan Information Technology Group** **2025 – 2026**
- **Leader of Ho Chi Minh University of Technology Group - Viet Nam National University 2025 – 2026**

EXPERIENCE

- **Developer of SAT Online Course Website** **2025 – 2026**
- **Mathematics Tutor** **2024 – 2026**

Global Certifications

- **Ielts Certification**
- **SAT Certification**
- **HO CHI MINH CITY Science and Engineering Fair Certification**
- **HCMC AI Challenge 2025 Certification for attending final round**
- **Certification from University of Information and Technology for attending AI course**
- **Certification from University of Technology for attending AI course**
- **Certification from University of Technology for helping research**
- **Legacy Responsive Web Design V8 Certification**
- **Scientific Computing with Python Certification**