Duc Tai Dinh

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EDUCATION

University of Science, VNU-HCM

Thu Duc, HCMC

Bachelor of Science, Artificial Intelligence

Aug 2023 — May 2027

- Cumulative GPA: 8.78/10.0 (3 semesters) | Vu A Dinh Scholarship | Local Scholarship
- Relevant Coursework: Calculus, Linear Algebra, Discrete Math, Combinatorial Math, Statistics, Math for AI, Programming for AI, Data Structures and Algorithms, Computer Networking, Object-Oriented Programming, Databases

Bao Loc High School for Gifted

Bao Loc, Lam Dong

High School Diploma, Mathematics Specialization

Aug 2020 — Jun 2023

- Cumulative GPA: 9.0/10.0 | Six-Semester Incentive Scholarship
- Award: First Prize in Mathematics Provincial-level Excellent Students Contest Grade 12

PROJECTS

Researcher & Developer, Mathematics for AI (github.com/ductai05/Y2S2-Math4AI)

Mar 2025 — now

• [Jupyter Notebook] Researched and implemented machine learning algorithms grounded in mathematical principles, including Regression, K-Means, PCA, Mean Shift, MLE, MAP, and Naive Bayes. Explained a foundational VLMs, CLIP.

Back-end Developer, Control Computer via Gmail (github.com/ductai05/socket)

Nov 2024 — Dec 2024

• [C++] Controlling a cluster of server computers in a LAN from a client machine, utilizing cURL and Winsock, with communication between the client and the server network facilitated through Gmail using IMAP, SMTP, and Sockets.

 $\mathbf{UX/UI\ Designer,\ Front\text{-}end\ Developer},\ \mathbf{Maze\ Game\ } (\underline{\operatorname{github.com/ductai05/Y1S2\text{-}MazeGame}})\ \mathbf{Apr\ 2024} - \mathbf{May\ 2024} \\ \mathbf{May\ 2024} - \mathbf{May\ 2024} -$

• [Python] Maze Pathfinding Game, Implemented Using BFS for Maze Generation and A*, BFS, and DFS for Pathfinding.

EXTRACURRICULAR ACTIVITIES

Top 30 Final Round of the 5th AI Challenge Ho Chi Minh City 2024

- Theme: "Event retrieval from visual data". Team WATLERE achieved top 30.
- Researching, selecting, fine-tuning suitable AI models. Designing and building a data pipeline to handle data preprocessing, transformation, and feature engineering.

Top 4 EVENTA Grand Challenge - ACM Multimedia 2025

May 2025 — now

- Track 1: Event-Enriched Image Retrieval and Captioning. Achieved top 2 in the public test and top 4 in the private test.
- Designing algorithms to retrieve and generate more descriptive and comprehensive image captions.

ACHIEVEMENTS & CERTIFICATIONS

First Prize in Mathematics

Mathematics for Machine Learning Specialization, DeepLearning.AI

Mar 2024

Machine Learning Specialization, Stanford University & DeepLearning.AI

Feb 2024

VSTEP level 4, English B2 CEFR, Ho Chi Minh University of Social Sciences and Humanities (USSH)

Sep 2023 Mar 2023

• Provincial-level Excellent Students Contest Grade 12, Lam Dong 2023

• Issued by Director of the Department of Education and Training of Lam Dong Province

Academic Proficiency Test 2023 - VNUHCM

Mar 2023

• Score: 1012/1200, top 0.244%. Issued by Vietnam National University Ho Chi Minh City

SKILLS

- Programming Languages: Python, C/C++, R, Matlab, SQL
- Technologies: Git, Github, FastAPI, Anaconda, CMake, Electron, Typst, LaTeX, NixOS, Streamlit
- Research Interests: LLMs, VLMs, OCR, ASR, Object detection, CNN, ViT, Transformers, DINO, FAISS.
- AI Libraries: Numpy, Pandas, TensorFlow, PyTorch, Keras, scikit-learn
- Languages: Vietnamese (native), English (B2)