Nguyen Hoang Nhat Tan

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Education

Doctor of Philosophy (PhD) in Statistics *University of Illinois at Chicago (UIC)* **Chicago, IL** *08/2025-Now*
GPA: -/4.00

Bachelor of Science (Honors) *Fulbright University VietNam (FUV)* **HCMC, Viet Nam** *08/2021-05/2025*
Major: Applied Mathematics. Minor: Computer Science.
GPA: 3.89/4.00 - Summa cum laude top 5%

Research Experience

Capstone Project **FUV** *08/2024 - 05/2025*

- Topic: Parameters estimation for interest rate and stock price models.
- Maximum likelihood estimation, approximated density, Ornstein-Uhlenbeck, CIR, geometric Brownian motion.

AI City Challenge 2024 *(AICC24)* **FUV** *01/2024 - 03/2024*

- Road Object Detection in Fish-Eye Cameras.
- Ranking: 21/70 (General) and 16/52 (Public).

Workshop on Vietnamese Language and Speech Processing *(VLSP23)* **FUV** *09/2023 - 12/2023*

- Machine translation VietNamese ↔ Laos – Ranking 7/7 - Report.
- Comparative Opinion Mining – Ranking 5/22 - Accepted manuscript arXiv:2401.01108.

Teaching Experience

Teaching Assistant (TA) MATH165 **UIC** *08/2025 – Now*
- MATH165: Calculus for Business.

TA CS103 & CS311 **FUV** *01/2025 – 05/2025*
- CS103: Programming for Data Science and Visualization.
- CS311: Advanced Deep Learning.

Senior TA CS103 & CS313 **FUV** *08/2024 – 12/2024*
- CS103: Programming for Data Science and Visualization.
- CS313: Deep Learning for Artificial Intelligence.

TA CS208 **FUV** *01/2024 – 05/2024*
- CS208: Machine Learning for Data Science.

- Led weekly 50-mins discussion sessions. Promoted active learning, growth mindset.
- Assisted with course administrations. Managed office hours and review sessions, projects.
- Gave feedback on materials and assignments to the instructor. Wrote and reviewed all demo codes and solutions.

Working Experience

Student IT Support **FUV** *02/2022 – 06/2022*
- Supported hybrid teaching and learning plan; technical and equipments support.

Activities and Competitions

Vietnamese Student Math Olympiad 2024 *(VMS Official)* **Da Nang City, Viet Nam** *04/2024*
- Silver medal - Analysis.

Vietnamese Student Math Olympiad 2023   **Hue City, Viet Nam** *04/2023*
- Silver medal - Linear Algebra.

Tamarind Team (Admission support)   **FUV** *09/2021 – 07/2022*
- Webinar team - Organized webinars for FUV admission team campaigns.

Skills and Languages

- **Technical:** Python, TensorFlow, PyTorch, Java, R, Julia (SDE), MATLAB, LaTeX.

- **Language**: English (11/2024: TOEFL iBT 100).

Course projects and independent studies

- **Past course projects:** SDEs in Finance, Continuous but nowhere differentiable functions, SGD and optimizers, Optical music recognition, Stereo camera and disparity map, Maximal spanning tree, PCA.

- **Personal projects:** ProGAN re-implementation, CS231n self-paced, power iteration for eigen-decomposition.

Scholarships and Grants

- Academic year 2023-2024: MOET-VIASM Math Program Scholarship Semester $1 + 2$.