VAN TUAN LE

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Hanoi, Vietnam

EXPERIENCE

- **NVIDIA [🌐]** *Dec 2024 - now*
  Applied Scientist Hanoi, Vietnam
  - **BioNeMo**: Enhanced Generative Models for Molecular Docking - DiffDock.
    1. Expand and diversify training data.
    2. Improve model performance and generalization by training/retraining DiffDock on the augmented dataset.
    3. Explore architectural and algorithmic enhancements.
  - Manager: Van Ha Tang, PhD

- **Samsung SDS [🌐]** *Feb 2023 - Nov 2024*
  AI Research Engineer Hanoi, Vietnam
  - Researched and developed a Text-editing Diffusion model to modify some text areas with other contents, so that maintain the original style with the realistic appearance.
  - Researched, developed and deployed a Visual information extraction model to accurately categorize entities and match them as key-value pairs in documents, which achieved a long-term contract with Singaporean customers and some business opportunities.
  - Researched and deployed the precise Optical Character Recognition (OCR) system that covered many different types of documents.
  - Manager: Principal Engineer Nguyen Minh Tri, PhD

- **VinBrain JSC [🌐]** *Feb 2022 - Dec 2022*
  Applied Scientist Hanoi, Vietnam
  - Contributed on Computer-Aided Diagnosis solution to determine liver cancer by analyzing Vietnamese abdomen multi-phases CT images:
    1. Researched and developed AI model to classify phase for the multi-phases dynamic CT images, achieving over 95% classification's accuracy on the real data.
    2. Researched and Developed AI model to segment hepatic region for the multi-phases dynamic CT images.
    3. Reviewed the model's results on the production to evaluate the real performance and take necessary measures.
  - Advisor: Soan T.M. Duong, PhD

- **VinBigdata Institute [🌐]** *Sep 2021 - Jul 2022*
  Technology Specialist Hanoi, Vietnam
  - Completed courses in the AI Engineer Training Program, including Python, Linear Algebra, Probability and Statistics, Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, AI Ethics.
  - Leaded a team with 4 members to complete 3 projects:
    1. Ventilator Pressure Prediction
    2. Semi-unsupervised Semantic Segmentation
    3. Detect and suggest corrections in Vietnamese documents

- **iBME Lab [🌐]** *Jan 2017 - Jan 2023*
  Research Assistant Hanoi, Vietnam
  - Developed a machine learning model to quantitatively evaluate the balance disorder patient through the central point of mass.
  - Designed IoT system to monitor environmental factors in the library.
  - Developed image processing solution to collect and extract data from balance disorder patients based on image processing algorithm.
  - Authorship of 2 research papers published on journals.
  - Advisor: Tran Vu, PhD

Education

- **Hanoi University of Science and Technology** *Sep 2016 - Aug 2021*
  Bachelor of Engineering in Electronics and Telecommunications Hanoi, Vietnam
  - CGPA: 3.62/4.00 (equivalent to 90.5%)

Publications

[C.1] Huyen Nguyen*, **Tuan Le***, Kim-Loc Nguyen, Yuxing Peng, Emine Kucukbenli, Mai Thi Hien, Steven Truong, and Van Ha Tang. **Scaling Pocket Docking with Data Augmentation and Heterogeneous Equivariant Graph Attention.** *The Workshop on Generative and Agentic AI for Biology (ICML 2026).*

[J.1] Luong, Manh-Tu, Khanh Huyen Thi Pham, Nhat-Hai Nguyen, **Van-Tuan Le**, Phu Tran Vinh Pham, Tan Khanh Nguyen, and Thi-Thu Nguyen, "**FRAIL: fragment-based reinforcement learning for molecular design and benchmarking on fatty acid amide hydrolase 1 (FAAH-1)**", *Molecular Diversity (2026)*: 1-14.

[J.2] Anh Vu Tran, Quang Huy Hoang, **Van Tuan Le**, Thi Viet Huong Pham, "**A novel fast-qualitative balance test method of screening for vestibular disorder patients**", *The Indonesian Journal of Electrical Engineering and Computer Science*, Vol. 25, No. 2, 2022.

[J.3] Anh Vu Tran, Quang Huy Hoang, Anh Tu Nguyen, **Van Tuan Le**, Viet Khanh Le and Thi Viet Huong Pham, "**The models of Relationship Between Center of Gravity of Human and Weight, Height and 3 body's indicators (Chest, Waist and Hip)**", *Journal of Science & Technology technical Universities*, 2019.

Skills

- **Programming Languages:** Python, Matlab, C/C++
- **Software Development:** Git, Docker, Linux, Slurm
- **Deep Learning & Machine Learning:** PyTorch, NumPy, Pandas, Scikit-Learn, OpenCV
- **Deep Learning Applications:** Image Classification, Image Segmentation, Optical Character Recognition, Key Information Extraction, Relation Extraction, Generative Artificial Intelligence, Molecular Docking
- **Academic Research:** Conducting Literature Review, Writing Research Proposals, Publications

Honors and Awards

- **Certificate of Excellent Graduate Student** *Aug 2021*
  Hanoi University of Science and Technology
- **Best Thesis Presentation Award** *Aug 2021*
  Hanoi University of Science and Technology
- **Certificate of Teaching Assistantship** *Feb 2021*
  Hanoi University of Science and Technology
- **Scholarship "Ho Tro Hoc Tap 20192"** *Oct 2020*
  Hanoi University of Science and Technology
- **Top 6 in "Sang tao tre 2019 [Youth Innovation 2019]" – "Smart up for life"** *Dec 2019*
  Hanoi University of Science and Technology & VNPT
- **Scientific Research Student Award** *May 2019 & May 2021*
  Hanoi University of Science and Technology

Languages

- **English:** Fluent (IELTS 6.5)
- **Vietnamese:** Mother-tongue

References

1. **Dr. Vu Anh Tran**
   Lecturer, School of Electrical and Electronic Engineering
   Hanoi University of Science and Technology
   Email: vu.trananh@hust.edu.vn
   Phone: +84-944-639-471
   Relationship: Project Supervisor

2. **Dr. Soan Thi Minh Duong**
   Lecturer, Department of Computer Science
   Le Quy Don Technical University
   Email: soanduong@lqdtu.edu.vn
   Phone: +84-983-588-613
   Relationship: Mentor, Advisor