

THE-ANH VU-LE

+1(447) 902-1892 ◊ Urbana, IL

vltnh@illinois.edu ◊ [linkedin.com/in/vltnh](https://www.linkedin.com/in/vltnh) ◊ vltnh.github.io ◊ github.com/vltnh

EDUCATION

Ph.D. in Computer Science, [University of Illinois Urbana-Champaign](#) Expected 2027
Relevant Coursework: Deep Learning Theory, Statistical Reinforcement Learning, Deep Generative and Dynamical Models, Transfer Learning, Applied Stochastic Processes

B.S in Computer Science, [University of Science, VNU-HCM](#) 2016 - 2020
Honors Program, GPA: 9.62/10.00 (Valedictorian, top 1/500)
Relevant Coursework: Statistical Learning, Big Data, Advanced Probability and Statistics, Computer Vision, Natural Language Processing, Information Retrieval

SKILLS

Programming languages Python (5 years), C++ (2 years)
Tools L^AT_EX(4 years), git (4 years), PyTorch (4 years)

RESEARCH EXPERIENCE

[University of Illinois Urbana-Champaign](#), PhD Student Jan 2023 - now
Supervised by Professor [Arindam Banerjee](#) on Probabilistic Machine Learning

- **Stochastic Localization**: Sampling and training of energy-based models using stochastic localization
- **SGLD**: Application of stochastic gradient Langevin dynamics to training neural networks

Supervised by Professor [Bo Li](#) on Trustworthy Federated Learning Aug 2022 - May 2023

- **UniFed**: Benchmark of Federated Learning systems

[VinAI Research](#), Research Resident Jan - Aug 2022
Supervised by Professor [Tung Pham](#) and Professor [Nhat Ho](#) on Machine Learning

- **Active Learning Benchmark Toolkit**: Benchmark of Active Learning algorithms
- **Computational Optimal Transport**: A collection of Optimal Transport techniques

Supervised by Professor [Minh Hoai Nguyen](#) on Computer Vision Aug - Dec 2021

- **trackun**: A Python package for multiple object tracking using Bayesian filters

[SELab, University of Science, VNU-HCM](#), Research Assistant 2019 - 2021
Supervised by Professor [Minh-Triet Tran](#) on Computer Vision

- **RingViewNet**: A neural 3D-model embedding system, 1st place in SHREC'21
- **Re-Identification**: A framework for re-identification problems
- **Video Object Segmentation**: Object segmentation with reference from an annotated frame

[Coordinated Science Laboratory, UIUC](#), Student Intern Aug - Nov 2019
Supervised by Professor [Minh Do](#) on Computer Vision

- **pytorch-semseg**: A framework for image semantic segmentation

SELECTED PUBLICATIONS

1. **The-Anh Vu-Le***, Cong-Duy Nguyen*, Thong Nguyen, Tho Quan, Anh-Tuan Luu. Expand BERT Representation with Visual Information via Grounded Language Learning with Multimodal Partial Alignment. *Proceedings of the 31st ACM International Conference on Multimedia (ACMMM 2023)*. [\[Abstract\]](#) [\[PDF\]](#)
2. Khai Nguyen*, Dang Nguyen*, **The-Anh Vu-Le**, Tung Pham, Nhat Ho. Improving Mini-batch Optimal Transport via Partial Transportation. *Proceedings of the 39th International Conference on Machine Learning (ICML 2022)*. [\[Abstract\]](#) [\[PDF\]](#) [\[Code\]](#)

PERSONAL PROJECTS

- Pseudo-Random Number Sampling:** A collection of pseudo-random number generators 2022
- Botwar Battleship:** A Unity visualization for an AI-based adversarial game 2020
- torchan:** A personal framework for deep learning projects 2019

HONORS

- Ho Chi Minh ICT Awards, Department of Information and Communications, Ho Chi Minh City** 2019

PROFESSIONAL ASSOCIATIONS

- PiMA - Projects in Mathematics and Applications,** Mentor/Organizer since 2017
- Organize mathematics workshops for high school students: prepare and present the workshop content. Past topics: Linear Programming (2017), Computer Graphics (2018), Game Theory (2019), Graph Theory (2019), Probability and Statistics (2020)
 - Organize annual 10-day mathematics summer camps for high school students: prepare teaching materials, give lectures, and provide assistance to students. Past topics: Math Modeling (2017), Machine Learning (2018), Deep Learning (2019), Data Science (Online, 2020), Bioinformatics (2022)
 - Organize booths at events like Math Open Day (2019, 2020) to hold challenging games for students. Games are designed based on Combinatorial Game Theory (Nim games), brain teasers, and puzzles.
- University of Urbana-Champaign, USA,** Teaching Assistant 2023
- CS 361: Probability and Statistics for Computer Science (Fall 23)
- International Conference on Artificial Intelligence and Statistics (AISTATS),** Reviewer 2023
- University of Science, VNU-HCM, Vietnam,** Teaching Assistant 2021 - 2022
- Applied Mathematics and Statistics (Fall 21, Spring 22, Fall 22)