

EDUCATION

- **University of Arkansas** Arkansas, USA
Ph.D student in Computer Science; *Jan. 2022 – now*
 Research topics: Self-supervised learning, Unsupervised learning, quantum machine learning.
- **Chonnam National University** Gwangju, Korea
M.S in Computer Science; GPA: 4.38/4.5 *Sept. 2018 – 2020*
 Research topics: Emotion Recognition and Medical Image Processing
- **University of Engineering and Technology - Vietnam National University** Hanoi, Vietnam
B.S in Electronic and Telecommunication; GPA: 3.5/4 *Sept. 2011 – Sept. 2015*
 Research topics: 5th Generation (5G) of Telecommunication System

PROFESSIONAL EXPERIENCE

- **VinAI** Vietnam
Senior Research Engineer *July. 2020 - Junly. 2021*
 - **Face Recognition:**
 - **3D Object Detection:**
- **a-LINK Group** Yokohama, Japan
Software Engineer *Aug. 2016 - Jun. 2018*
 - **3D-LiDAR Firmware:**
Collects the raw scanning data from the laser device and transfer to the cloud/application in real-time.
 - **3D-LiDAR SDK:**
Software development kit (SDK) is provided to simplify and shorten implementation according to use of LiDAR.
 - **3D-LiDAR Based System Application:**
Detects and tracks multiple objects such as: human, cars,..
- **Toshiba Software Development Vietnam** Hanoi, Vietnam
Software Engineer *Jun. 2015 - Jul. 2016*
 - **ARM mbed:**
ARM mbed is an ecosystem developed for IoT. It provides the standard interfaces, APIs, protocols for general ARM-family processors.

HONORS & AWARDS

- **Kaggle Competition Master** Sept. 2019
Highest Ranking: 50/137000 worldwide
- **5th Place - RSNA Intracranial Hemorrhage Detection** Nov. 2019
- **3rd Place - Document Image Binarization Competition** Sept. 2019
This competition is a part of the DIBCO 2019
- **3rd Place - Organ-at-risk Segmentation From Chest CT Scans** Sept. 2019
Invited to present at MICCAI 2019
- **4th Place - Gross Target Volume Segmentation of Lung Cancer** Sept. 2019
Invited to present at MICCAI 2019
- **4th Place - Recursion Cellular Image Classification** Sept. 2019
Invited to present at NeurIPS 2019

- 5th Place - Emotion Recognition in the Wild Challenge Jul. 2019
- 18th Place - Jigsaw Unintended Bias in Toxicity Classification Jun. 2019
- 8th Place - PetFinder.my Adoption Prediction Mar. 2019
- 11st Place - Quick, Draw! Doodle Recognition Challenge Dec. 2018
- Best Thesis Award Jul. 2015
- PonyChung Scholarship Aug. 2014
- Odon Vallet Scholarship Jun. 2013

PUBLICATIONS

4.1 Conferences

1. Nguyen, Pha, Kha Gia Quach, Chi Nhan Duong, Ngan Le, **Xuan-Bac Nguyen**, and Khoa Luu. "*Multi-Camera Multiple 3D Object Tracking on the Move for Autonomous Vehicles*" In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pp. 2569-2578. 2022.
2. Truong, Thanh-Dat, Naga Venkata Sai Raviteja Chappa, **Xuan Bac Nguyen**, Ngan Le, Ashley Dowling, and Khoa Luu., "*OTAdapt: Optimal Transport-based Approach For Unsupervised Domain Adaptation*", International Conference on Pattern Recognition, 2022.
3. **X. B. Nguyen**, D. T. Bui, C. N. Duong, T. D. Bui and Khoa Luu, "*Clusformer: A Transformer based Clustering Approach to Unsupervised Large-scale Face and Visual Landmark Recognition*", Conference on Computer Vision and Pattern Recognition, 2021.
4. **X. B. Nguyen**, G. S. Lee, S. H. Kim and H. J. Jang, "*Audio-Video based Emotion Recognition Using Minimum Cost Flow Algorithm*", International Conference on Computer Vision (ICCV) Workshop, Seoul, Korea, 2019.
5. **X. B. Nguyen**, N. H. Nguyen, and T. Saba, "*Channel reallocation for reducing power consumption in femtocell mobile networks*", 4th NAFOSTED Conference on Information and Computer Science, Hanoi, Vietnam, 2017.
6. **X. B. Nguyen**, N. H. Nguyen, et al. "*Cognitive cellular femtocell network modeling and simulation for performance comparison of uplink channel allocation schemes*", IEEE REGION 10 SYMPOSIUM, Kuala Lumpur, Malaysia, 2014.
7. **X. B. Nguyen** and G. S. Lee, "*Temporal Model For Video-based Emotion Recognition*", Smart Media Conference, Chungju, Korea, 2019.
8. **X. B. Nguyen** and G. S. Lee, "*A Deep Learning Based Framework For Emotion Recognition In Audio-Video*", Korean Computer Congress Conference, Jeju, Korea, 2019.

4.2 Journal

1. **X. B. Nguyen**, G. S. Lee, S. H. Kim and H. J. Yang, "*Self-Supervised Learning Based on Spatial Awareness for Medical Image Analysis*" in IEEE Access, vol. 8, pp. 162973-162981, 2020, doi: 10.1109/ACCESS.2020.3021469.
2. **X. B. Nguyen** and G. S. Lee, "*Sketch Recognition using LSTM with Attention Mechanism and Minimum Cost Flow Algorithm*", International Journal of Contents, 2019.

ACADEMIC SERVICES

5.1 Journal Reviewers

1. IEEE Access.
2. Machine Learning With Applications Journal.

LANGUAGES AND SKILLS

Vietnamese (native)	Pytorch (advance)	C# (intermediate)
English (working proficiency)	Keras (intermediate)	L ^A T _E X (intermediate)
Japanese (common phases, sentences)	Python (advance)	
Korean (basic words/phases)	C/C++ (advance)	

SOCIAL ACTIVITIES

- **Contributor of Catalyst:** High-level utils for PyTorch DL & RL research. It was developed with a focus on reproducibility, fast experimentation and code/ideas reusing.
- **Contributor of aivivn.com:** aivivn.com is a non-profit organization which holds the mission to contribute to the AI of the Vietnamese community and bring AI solutions for the industrial. It is known as the biggest community in Vietnam.