Hieu Vu

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RESEARCH INTERESTS

I'm curious about machine learning methods for limited/corrupted supervision data, which is a prevalent scenario due to the expensive labeling costs. Currently, I mainly focus on the techniques of Active Learning for selecting informative and diverse data samples to annotate, as well as Bayesian Inference framework, Self-Supervised learning and Distributionally Robust Optimization for enhancing the quality and robustness of ML models.

ACADEMIC BACKGROUND

Hanoi University of Science and Technology (HUST) Hanoi, Vietnam
Excellence Degree *of Engineer in Information Systems, CPA* 3.63/4.0 *Aug.* 2014 – *Mar.* 2019

SELECTED AWARDS

Excellence scholarship for the academic year of 2018 – 2019
Granted for top 1% *students with highest CPA of School of Information and Communication Technology, HUST*

NOTABLE RESEARCH WORKS

Distributionally Robust Fair Principal Components via Geodesic Descents
**Hieu Vu*, Toan Tran, Man-Chung Yue, Viet Anh Nguyen*
preprint, 2021

Bayesian Metric Learning for Robust Training of Deep Models under Noisy Labels
**Hieu Vu*, Toan Tran, Gustavo Carneiro*
preprint, 2020

MAP Estimation With Bernoulli Randomness, and Its Application to Text Analysis and Recommender Systems
*Xuan Bui, **Hieu Vu*, Oanh Nguyen, Khoat Than*
IEEE Access, 2020

RESEARCH EXPERIENCES

Research Resident Nov. 2019 – Present
VinAI Research *Hanoi, Vietnam*

- Supervisors: Toan Tran (Research Scientist, VinAI Research), Viet Anh Nguyen (Research Scientist, VinAI Research)
- Main research topics: Bayesian methods for Noisy Labels data, Active Learning, Domain Adaptation
- Gained Backgrounds: Linear Algebra, Statistic, and Generative Models, Robust Optimization

Undergraduate Research Assistant Jun. 2017 – Jun. 2019
Data Science Lab, School of Information and Communication Technology, HUST *Hanoi, Vietnam*

- Supervisors: Khoat Than (Associate Professor, HUST)
- Main research topics: Topic models
- Gained backgrounds: Linear Algebra, Topic modeling methods

INDUSTRIAL EXPERIENCES

Applied Rotation Program Resident Jun. 2021 – Sep. 2021
VinAI Research *Hanoi, Vietnam*

- Supervisor: Binh-Son Hua (Research Scientist, VinAI Research)
- Develop models to detect objects in 3D space, based on point cloud data
- Learned technologies: MMDetection3d framework

Software developer Jun. 2018 – Apr. 2019
VC Corporation *Hanoi, Vietnam*

- Develop recommendation system for news articles using ML models: RNN-based and CNN-based
- Build micro-service web server
- Learned technologies: Flask, Java-Jersey, Jetty framework, MySQL, Aerospike, Kafka

SKILLS

Spoken Languages: English (Fluent - IELTS 7.5), Vietnamese (Native)
Programming Languages: Python, Java, JavaScript, and C/C++
Technologies: Web-based: HTML/CSS/JS, ExpressJS, ReactJS; Databases: MySQL, MongoDB, Aerospike