

Phong D. Vo

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.EDU

Telecom ParisTech
PHD OF SIGNAL & IMAGES
Grad. Mar'14 | Paris, France

University of Science
MSC OF COMPUTER SCIENCE
Grad. Sep'09 | HCMC, Vietnam
BSC OF COMPUTER SCIENCE
Grad. Sep'07 | HCMC, Vietnam

/*SKILLS*/

Languages

Python • C • C++ • Matlab • Java •
Bash • JavaScript • HTML

Tools

Scikit-learn • NumPy • Scipy •
OpenCV • Caffe • Android •
Node.JS • Angular.JS • CUDA BLAS

Speak & Write

Proficient English • Debutante French

Teamworking

Cooperative • Love to share & discuss

__BACKGROUND__

Maths

Calculus • Probability •
Linear Algebra • Optimization

Machine Learning

Deep Convolutional Networks
Kernel Methods & SVM
Semi-supervised Learning
Transductive Learning
Domain Adaptation
Manifold Learning
Sparse Coding

Computer Vision

Object Classification
Scene Understanding
Image Segmentation
Image Search

DIY@HOME

I build wheeled robots using cheap parts such as Raspberry Pi, Arduino, motors and servos. Robots are tele-controlled via live video chat or run autonomously. Processing runs either on RPi or Android phone with OpenCV. I am also experimenting with smart-home control using Google voice speech and BLE.

+EXPS

Postdoctoral Engineer in Deep Learning

APR'14 – APR'16

CEA LIST, Paris, France

- Propose a multi-instance learning approach that uses noisy data to build better deep features, enable object recognition and localization with reduced annotation cost.
- Applying deep convolutional networks for semi-supervised representation learning. Succeeded in training competitive deep models just using noisy Web images.
- Studying and implementing image reranking methods (for noise removal) and domain adaptation (domain bias elimination), multi-instance learning (weak-supervised learning).
- Proposed a method for sparse semantic encoding, to be used in image retrieval.

Christ-era Project MUCKE for Multimodal Data

APR'14 – DEC'15

Collaboration of CEA LIST, TUWien, Bilkent, A.I.Cuza

This project is about novel and reliable knowledge extraction models designed for multilingual and multimodal data shared on social networks. I am working on visual data and applying deep learning to construct visual concepts.

PhD in Machine Learning & Images

OCT'10 – MAR'14

Telecom ParisTech, France

To scale kernel methods into data scarcity problems is challenging. We estimate topological structure of unlabeled data in order to learn an explicit kernel mapping. Combining with a very few number of labeled data, our approach can be applied in different computer vision problems:

- Discriminative kernel mapping for image classification and segmentation.
- Context-aware kernel mapping for street & natural scene understanding.
- Manifold learning for data visualization & search
- Semantic alignment for online shopping relevance feedback.

CNES Project VENISE about satellite images

OCT'10 – JUL'12

CNES & Telecom ParisTech, France

Satellite images are too huge for manual inspection. I provided an alternative semantic view of image content complementing to the default geographical view.

- Design algorithms to index satellite images for semantic search and visualization.
- Develop a 3D visualization & navigation software based on the open source PartiView.

Internship at Multimedia Lab

FEB'09 – AUG'09

National Institute of Informatics, Tokyo, Japan

I tackle TRECVID challenge in activity recognition, tracking, and detection. I have hand-on experience processing hundreds hours of videos and paralleling algorithms on CPU clusters.

Teaching CS

JAN'07 – SEP'10

University of Science (HCMUS), Vietnam

I get an offer to work as a teaching assistant and then lecturer in my college. I am responsible some courses such as data structures & algorithms, artificial intelligence, computer graphics.

.:PUBS

arXiv	On Deep Representation Learning from Noisy Web Images	2015
ICIP	Contextual Kernel Map Learning for Scene Transduction	2015
CBMI	Effective Training of Convolutional Networks using Noisy Web Images	2015
MM	Large-scale Image Mining with Flickr Groups	2015
ICIP	Modeling Label Dependency in Kernel Learning for Image Annotation	2014
SIGIR	Spacious: An Interactive Mental Search Interface	2013
IGARSS	Semantic Subspace Learning for Mental Search in Satellite Images	2013
ICCSA	Combining Deconvolutional Features and SIFT in Image Classification	2013
BMVC	Transductive Kernel Map Learning & Application to Image Annotation	2012
ICIP	Transductive Inference & Kernel Design for Object Class Segmentation	2012
RIVF	Combining Color and Texture for Interactive Segmentation	2010
RIVF	GPU Implementation of Extended GMM for Background Subtraction	2010