An Tran

PhD candidate

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Summary

My general interests are in the fields of computer vision, machine learning and heterogeneous computing. Currently, my research focus is on temporal modeling of video, action recognition, action detection, deep learning, and structured prediction.

Education

Aug PhD, National University of Singapore (NUS), Singapore.

2012-Present Advisors: Prof. Loong-Fah Cheong, Prof. Qi Zhao

Research areas: Computer Vision, Machine Learning Thesis topic: Human-focused Action Recognition

Aug B.Eng., Ho Chi Minh City University of Technology (HCMUT), HCM City, 8.92/10.

2007–Apr Major: Computer Enigneering

2012 Thesis topic: Measuring Available Bandwidth in Wireless Environment

Advisors: Dr. Nam Thoai, Prof. Tran Vu Pham, Prof. Guillaume Urvoy-Keller

Work Experience

Apr 2012–Jun **Software Engineer**, *Softfoundry Technology Pte Ltd*, HCM City.

2012 • Identifying bottlenecks and improving networks infrastructre for video conference products.

Research Experience

Sep Research Intern, 13S Lab, Universite Nice Sophia Antipolis, Sophia Antipolis, 2011-Mar France.

2012 • Investigating different approaches to measure the bandwidth in wireless networks.

Aug PhD Candidate, Vision and Interactive Media Lab, Dept. of Electrical & Computer 2012-Present Engineering, NUS.

- Developing a spatio-temporal actionness measure, then actionness-assisted action recognition pipeline using Bag-of-Words (BoW) approach.
- Developing two-stream flow-guided convolutional attention networks for action recognition.
- Proposing different methods to capture long-term temporal nature of videos.

——— Publications

- C1 Ye Luo, Loong-Fah Cheong, An Tran. Actionness-assisted Recognition of Actions, in The IEEE International Conference on Computer Vision (ICCV), 2015.
- C2 An Tran, Loong-Fah Cheong. Flow-guided Convolutional Attention Networks for Action Recognition, submitted to The IEEE International Conference on Computer Vision (ICCV), 2017.

Programming Skills

Languages C/C++, Matlab, Python, Bash.

Libraries & OpenCV, Caffe, Torch, PyTorch, NVIDIA DIGITS, CUDA, scikit-learn, LIBSVM,

frameworks Yael, VLFeat, Boost, Eigen.

Tools: Cmake, QtCreator, LaTeX, Linux, Windows.

Open Source BoW frameworks for action recognition (Matlab toolbox link)

Contribution

Honors and Awards

2012–2016 NUS Research Scholarship

2011–2012 Erasmus Mundus Exchange Student Scholarship

2007-2011 HCMUT Excellent Student Scholarship

Relevant courses

NUS EE5731R Visual Computing, EE5907R Pattern Recognition, EE5904R Neural Networks, EE6901 3D Vision, EE6733 Advanced Topics on Vison and Machine Learning, EE6903 Advanced Models of Biological Perception, EE5138R Optimization for Communication Systems, CS4248 Natural Language Processing, CS6101 Deep Learning for NLP, CS6240 Multimedia analysis, CS5340 Uncertainty Modelling in Al, CS5228 Knowledge Discovery and Data Mining, CS5234 Combinatorial and Graph Algorithms, CS5224 Cloud Computing.

Coursera Probabilistic Graphical Models (with Distinction), Machine Learning, Computational Photography (with Distinction), Algorithms (Part I & II) and others.

Udacity Intro to Machine Learning, Intro to Parallel Programming.

References

Available upon request.