Phan Kien Tuong

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Research Interests Neural Networks, Machine Learning, Computer Vision, Pattern Recognition, Remote Sensing

Education

University of Nottingham Malaysia Campus, Selangor, Malaysia

PhD, Computer Science, *Expected:* July 2018

- Thesis Topic: *Parallel Circuits - A Modular Neural Network Architecture*
- Supervisors: Tomas Henrique Maul, PhD and Tuong Thuy Vu, PhD

University of Nottingham Malaysia Campus, Selangor, Malaysia

BSc, Computer Science (Honors), July 2012

Journal Publications

1. **PHAN, K.T.**, MAUL, T.H., VU, T.T. and LAI, W.K. 2017. DropCircuit: A Modular Regularizer for Parallel Circuit Networks. (In Press) Neural Processing Letters.
2. **PHAN, K.T.**, MAUL, T.H. and VU, T.T. 2017. An Empirical Study on Improving the Speed and Generalization of Neural Networks Using a Parallel Circuit Approach. International Journal of Parallel Programming, 45, 780-796.

Conference Publications

1. **PHAN, K.T.**, MAUL, T.H., VU, T.T. and LAI, W.K. 2016. Improving Neural Network Generalization by Combining Parallel Circuits with Dropout. In: HIROSE, A., OZAWA, S., DOYA, K., IKEDA, K., LEE, M. and LIU, D. (eds.) Neural Information Processing: 23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16–21, 2016. Proceedings, Part III. Cham: Springer International Publishing.
2. **PHAN, K.T.**, MAUL, T.H. and VU, T.T. 2015. A Parallel Circuit Approach for Improving the Speed and Generalization Properties of Neural Networks. 11th International Conference on Natural Computation, ICNC 2015, Zhangjiajie, China.

Awards PhD Funding — Crop for the Future Research Center (CFRRC)

Full tuition fee and stipend.

Projects

Undergraduate Final Year Project — Content-based Image Retrieval

- Depict the orientations of images via Fourier domain.
- Develop and optimize a Deep Belief Network model to recognize the scenes.

PhD Project — Vegetation Classification based on Remote Sensing Imagery

- Generate a vegetation dataset of satellite images within Malaysian bounder.
- Perform numerous experiments to select the optimal models for the task.
- Tackle the heavy computational expenses by proposing more lightweight models.
- Compensate the reduction in generalization through an emphasize on modularity and diversified learning.

Technical Experiences

Programming Skills:

- Java, MATLAB, Python (Theano)

Professional Activities:

- Peer-reviewer for Optical Engineering, Journal of Applied Remote Sensing