## **Tung Thanh Le**

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#### Education

University of Louisiana at Lafayette

September 2013 - Present

Sept 2011 – Jun 2013

<u>PhD Candidate</u>, **Computer Science** (Expected: Dec 2017)

Co-Advisors:

Dr. Magdy Bayoumi (U. of Louisiana)
Dr. Danella Zhao (Old Dominion Univ.)
M.Sc., Computer Science (Dec 2016)
M.Eng., IT Convergence Engineering

School of Electronic Engineering

<u>B.Eng.</u>, graduation thesis distinction, Automatic Control School of Electrical Engineering

# Honors & Awards

core systems.

Research Interests

• Computer architecture for many-

• Scalable, interconnect, networks

Optimization, Machine learning,

on chip in distributed systems.

Artificial Intelliaence.

- Graduate Teaching Assistantship, Fall 2015 Present
- NSF Graduate Research Fellowship, Aug. 2013 Aug. 2015
- Best Paper Award 14<sup>th</sup> Conference on Electronics & Information Communications, 2012
- NIPA scholarship and NRF scholarship, South Korea, Sept 2011 Jun 2013
- Samsung Thales scholarship for student travel, Dec 2012
- Excellent student in Danang University of Technology, Jan 2004 – Jun 2007
- One of four honor students achieving highest score on graduation thesis (4/500), Jun 2007

## **Professional Work Experience**

Danang University of Technology

September 2002 – June 2007

**University of Louisiana at Lafayette,** LA, USA **Graduate Assistantship**, August 2013 - present

**Kumoh National Institute of Technology** 

**Hanwha Thales** (aka. Samsung Thales), South Korea, **Research Intern**, August 2012 – December 2012

**Orion Technologies Co.**, South Korea, **Summer Intern**, June 2012 – August 2012

Unilab, Danang Univ. of Tech., Vietnam, Software Engineer, May 2008 – August 2011

Acronics Systems Inc., CA, USA, (Danang office, Vietnam) PCB Engineer, June 2007 – April 2008

### Selected publications

- Efficient Reconfigurable Global Network-on-chip Designs towards Heterogeneous CPU-GPU Systems: An Application-Aware Approach ISVLSI 2017
- Optimizing the Heterogeneous Network-On-Chip Design in Manycore Architectures IEEE SOCC 2017

## **Projects**

- **HeteroArchGen4M2S**: An automatic software for configuring and running heterogeneous CPU-GPU architectures (HSA) on Multi2Sim simulator. This tool is built on top of M2S simulator, it allows us to configure different HSA (e.g., #CPUs, #GPUs, L1\$, L2\$, memory, network topologies, etc). The output files include the results of network throughput and latency, and dynamic power of the cores.
- Traffic Sign Recognition Classifier (Deep Learning and Neural Network with Tensorflow) Use deep convolutional neural networks (DCNN) to build traffic sign recognition. Train a deep neural network model to classify traffic signs from the German Traffic Sign Dataset and random traffic signs downloaded from internet.
- **Finding lane lines on the road** (Computer Vision, project of the Self-Driving Car Engineer Program) Detected highway lane lines on a video stream. Used OpencV image analysis techniques to identify lines, including Hough Transforms and Canny edge detection.
- Pingo'in Android Application

This android app is created by using a Google maps API. You can build your list of points of interest (POI) on the Google's map, then the application will scan your map within the preset radius, if your POIs are within this radius, they will be displayed on your screen. Used Java, Eclipse for building the app, and used SVN for merging the code project.

• New Cinema Booking System – Database Systems

Designed the database system using ER-diagram. Used MySQL and PHP to build the online booking system. Two modes for admin and users.

- **Price Dropping Looker:** A tool for looking into the price dropped of the Amazon's items. Your wish-list items on Amazon will be alerted via your email if those prices are dropped below your expected price, the ratings and number of reviews also are taken into account.
- Multi-class inheritance Scheme Language

Used Scheme language to modify the interpreter for creating new functions of the language. In this work, multi-class inheritance function is created. New instance generated is inherited to all the methods from joined classes. Used Scheme language for implementation.

• 802.11 DCF MAC Protocol simulation – Wireless Networking

Implemented a 802.11 DCF MAC Protocol operation with Gillbert-Elliot channel model, RTS/CTS exchange, in different network topologies. Used C++ for implementation.

• Online Courses: Machine Learning (Coursera-License#: 7MMK9BZBASXN); Java Multithreading (Udemy-License#: UC-TBSY47EV); Deep Learning by Google Brain (Udacity)

## Computer skills

Expertise with Java, Python, Tensorflow, C++, Keras, MATLAB, Assembly; Fluency with PHP, MySQL, OpenCV, HTML, Scheme, R, CPLEX/AMPL, Verilog, VHDL, LaTEX.