

# THONG HOANG

School of Information System, Singapore Management University

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Homepage: <https://hvdthong.github.io/>

## EDUCATION

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**Singapore Management University, Singapore**

*August 2016 - Present*

School of Information System

Ph.D. Candidate

**Konkuk University, South Korea**

*March 2009 - June 2011*

Department of Advanced Technology Fusion

Master of Computer Science

**Ho Chi Minh City University of Technology, Vietnam**

*September 2004 - February 2009*

Department of Computer Science

Bachelor of Computer Science

## RESEARCH INTEREST

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- **Software repository mining:** Code understanding and inference; bug localization; bug fixing patches; just-in-time defect prediction
- **Social network analysis and mining:** Tracking topics in document streams; modelling users and communities

## WORKING EXPERIENCE

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**Research Intern; Fujitsu Lab of America**

*September 2019 - December 2019*

- Developing a system for checking the quality of AI models

**Research Engineer; Singapore Management University**

*May 2015 - July 2016*

- Developing a dashboard for tracking transportation systems in Singapore using social media
- Developing a system for detecting transportation events and perform sentiment analysis

**Research Engineer; Ghent University**

*February 2012 - April 2015*

- Developing a ranking system for finding relevant documents given a query
- Employing a budget aware learning, by exploiting cheap approximate annotation, to minimize human annotation effort

## TEACHING

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**Singapore Management University**

*August 2016 - Present*

- Business and data management, as teaching assistant (IS110)
- Computation thinking, as teaching assistant (IS103)

## SKILLS

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<b>Programming Languages</b>	Python, Java, Matlab, R, C/C++/C#
<b>Deep Learning Frameworks</b>	Pytorch, Tensorflow, Keras, Theano
<b>Machine Learning Libraries</b>	Sklearn, Numpy, Pandas, Weka
<b>Operating Systems</b>	Linux, Windows
<b>Database Management</b>	MS SQLServer, MySQL, ElasticSearch
<b>Editor</b>	Latex, MS Office

## PUBLICATION

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Thong Hoang, Julia Lawall, Richard J Oentaryo, Yuan Tian, David Lo; **PatchNet: Hierarchical Deep Learning-Based Stable Patch Identification for the Linux Kernel**; IEEE Transactions on Software Engineering (TSE), 2019.

Thong Hoang, Hoa Khanh Dam, Yasutaka Kamei, David Lo, Naoyasu Ubayashi; **DeepJIT: An End-To-End Deep Learning Framework for Just-In-Time Defect Prediction**; The 16<sup>th</sup> Mining Software Repositories Conference (MSR 2019), Montreal, Canada, May 2019.

Thong Hoang, Julia Lawall, Richard J Oentaryo, Yuan Tian, David Lo; **PatchNet: A Tool for Deep Patch Classification**; The 41<sup>st</sup> ACM/IEEE International Conference on Software Engineering (ICSE 2019), Demonstrations Track, Montreal, Canada, May 2019.

Thong Hoang, Richard J Oentaryo, Tien-Duy Bui Le, David Lo; **Network-clustered multi-modal bug localization**; IEEE Transactions on Software Engineering (TSE), 2018.

Thong Hoang, Pei Hua Cher, Philips Prasetyo Kokoh, Ee-Peng Lim; **Crowdsensing and Analyzing Micro-Event Tweets for Public Transportation Insights**; The 2nd International workshop on Big Data for Sustainable Development with IEEE Big Data (IEEE BigData 2016), Washington, USA, December 2016.

Thong Hoang, Thomas Demeester, Johannes Deleu, Piet Demeester, Chris Develder; **Ugent Participation in the Microblog Track 2012**; The 22nd Text Retrieval Conference (TREC 2012), Gaithersburg, USA, October 2012.

Thong Hoang, Thomas Demeester, Chris Develder, Hyoseop Shin; **Effectiveness of Learning to Rank for finding User Similarity in Social Media**; The 12th Dutch-Belgian Information Retrieval Workshop (DIR 2012), Ghent, Belgium, April 2012.

Nhat Hai Phan, Thong Hoang, and Hyoseop Shin; **Adaptive Combination of Tag and Link-based User Similarity in Flickr**; The 18th ACM International Conference on Multimedia (ACM MM 2010), Firenze, Italy, October 2010.

Thong Hoang, Nhat Hai Phan, and Hyoseop Shin; **An Empirical Analysis of User Clusters in Online Communities**; The 2nd International Conference on Emerging Databases (EDB 2010), Jeju, South Korea, August 2010.

## AWARDS

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2019: Awarded SMU Presidential Doctoral Fellowship

2016: Full Ph.D. scholarship from ministry of Education, Singapore

2009: Full M.S. scholarship from National Research Foundation, South Korea

2009: University scholarship for academic excellency, Ho Chi Minh City University of Technology

2008: FPT software company award for excellent student in training course, Vietnam

2004: Bronze medal in Mathematics competition of Khanh Hoa province, Vietnam

## SCIENTIFIC COMMUNITY ACTIVITIES

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**Journal Review:** Neurocomputing (2018, 2019), IST (2019), DAMI (2019)

**Conference Review:** SCAM (2019), ICECCS (2019), SANER (2020)

**Student Volunteer:**

- The 18th IEEE International Conference on Data Mining (ICDM 2018)
- The 31st IEEE/ACM International Conference on Automated Software Engineering (ASE 2016)

## REFERENCES

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**Dr. David Lo**

Associate Professor

Singapore Management University

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**Dr. Julia Lawall**

Inria Senior Research Scientist

Sorbonne University, Inria, LIP6

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