Trung-Hieu Tran

PERSONAL INFORMATION	**Gender**: Male	(+49) 1625165421 ✆
	Nationality: Vietnamese	(+49) 711 685 88216 ☎
	Date of birth: October 2nd, 1988	trung.hieu.tran@ipvs.uni-stuttgart.de ✉
	Address: Universittsstrae 38, D-70569 Stuttgart, Germany.	

RESEARCH INTERESTS

- Multi-view image processing
- Image and video compression
- Parallel computing with reconfigurable platform (FPGA) and GPU.

EDUCATION

DOCTORAL OF PHILOSOPHY Oct 2015 – Current
Department of Parallel System
Institute for Parallel and Distributed System
The University of Stuttgart, Germany

- **Thesis title**
  Parallel-Architecture for Light-field Image Processing and Compression

MASTER OF SCIENCE Sep. 2011 – Jul. 2013
Faculty of Computer Science and Engineering
HCMC University of Technology, Vietnam

- Degree in Computer Science
- Graduated with the highest honor
- **GPA**: 9.28/10.00

BACHELOR OF ENGINEERING Sep. 2006 – Jan. 2011
Faculty of Computer Science and Engineering
HCMC University of Technology, Vietnam

- Honours degree in Computer Engineering
- **GPA**: 8.56/10.00

RESEARCH EXPERIENCE

Re-configurable Intrusion Prevention System (HR-IPS)
Funded by Vietnam National University, Hochiminh City
May 2011 – May 2013

The project aims to develop a stateful Network Intrusion Prevention System (NIPS) for Gbps network connection. I worked on analyzing malicious network activities and developing a reconfigurable computing architecture for malicious patterns detection.

Related publication:[C1,J1]

Re-configurable Anti-virus System
Funded by The Department of Science and Technology, Hochiminh City
Sep. 2013 – Jul. 2015

The objective of this project is developing a high-speed virus scanning system for mail server and network gateway. My responsibilities are analyzing virus signatures and developing a hybrid system which combines CPU and reconfigurable devices (FPGA) for detecting virus signatures.

Related publication:[J2]

SELECTIVE PUBLICATIONS	**C3.** **Trung-Hieu Tran**, Zhe Wang and Sven Simon. *"Variational Disparity Estimation Framework for Plenoptic Images"*. IEEE International Conference on Multimedia and Expo (ICME) 2017. [**Best paper award**]

C3. **Trung-Hieu Tran**, Zhe Wang and Sven Simon. *"Variational Disparity Estimation Framework for Plenoptic Images"*. IEEE International Conference on Multimedia and Expo (ICME) 2017. [**Best paper award**]

C2. **Trung-Hieu Tran**, Yousef Baroud, Zhe Wang, Sven Simon and David Taubman, *"Light-field Image Compression Based on Variational Disparity Estimation and Motion-compensated Wavelet Decomposition"*. IEEE International Conference on Image Processing (ICIP) 2017.

J2. **Trung-Hieu Tran** and Tran Ngoc Thinh (2014), *"mDFA: A Memory Efficient DFA-Based Pattern Matching Engine on FPGA"*. Journal of Wireless Personal Communications, 78(4). (SCI, IF=0.951)

J1. **Trung-Hieu Tran**, Tran Ngoc Thinh and Shigenori Tomiyama (2013), *"ENREM: An efficient NFA-based regular expression matching engine on reconfigurable hardware for NIDS"*. Journal of Systems Architecture, 59(4). (SCI, IF=1.579)

C1. **Tran Trung Hieu**, Tran Ngoc Thinh, Tran Huy Vu and Shigenori Tomiyama, *"Optimization of Regular Expression processing circuits for NIDS on FPGA"*. IEEE International Conference on Networking and Computing (ICNC) 2011.

AWARDS AND HONORS

Postgraduate

- Jul. 2017   Best Paper Award in the 2017 IEEE International Conference on Multimedial and Expo (ICME)
- Feb. 2015   German Academic Exchange Service (DAAD) Reseach Grant for PhD study in Germany
- Dec. 2014   Vietnamese Goverment Scholarship for PhD study in USA

Graduate

- Nov. 2013   Master degree with the highest honor (over all disciplines)
- Oct. 2012   Vallet's Scholarship awarded for young researcher
- Aug. 2011   SORUN Kitagawa graduate research scholarship

Undergraduate

- Nov. 2010   PVFCCo honor scholarship for undergraduate students with outstanding academic achievements.
- Aug. 2010   Sunflower Mission Senior Project Sponsorship awarded for undergraduate thesis project

PROFESSIONAL EXPERIENCES

The University of Stuttgart, Stuttgart, Germany
PhD student   Oct. 2015 – present

- Working toward my doctoral degree at the institute for parallel and distributed systems.
- Teaching exercise class and supervising master student thesis.

HCMC University of Technology, Hochiminh city, Vietnam
Assistant Lecturer   Apr. 2011 – Aug. 2013

- Working toward my master of science degree in computer science.
- Teaching exercise classes and helping in supervising student projects and theses.
- Working on scientific research project.

Lecturer   Sep. 2013 – Jul. 2015

- Teaching undergraduate classes.
- Writing research proposal and working on scientific research project.

Hardware and
Software Skills

- Programming languages: C/C++, Java, Python, Matlab, OpenCL.
- Programming tools/library: OpenCV, TensorFlow.
- Hardware description languages: Verilog HDL, VHDL.
- Hardware design tools: QuartusII, Xilinx Vivado/ISE, Modelsim.

References

Prof. Dr.-Ing. Sven Simon
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