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# KHOA NGUYEN

2055 Carling Ave, Ottawa, Ontario, Canada . 613 406 8249 . khoantd2010@gmail.com

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## SUMMARY OF QUALIFICATIONS

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- Experience in Telecom industry.
- Background in programming languages: C/C++, MATLAB, Java, Python.
- Experience with integration, problem-solving, and creative thinking.
- Research interests: communication networks, cloud and edge computing, future Internet architecture, network virtualization, software-defined networks, network function virtualization.

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## PROFESSIONAL EXPERIENCE

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### **Instructor**

*Sept, 2013 - Sept, 2015*

**Can Tho University of Technology, Can Tho City, Viet Nam**

- Developing and executing program objectives for the Electrical and Electronics Engineering Program.
- Building course syllabus and curriculum for Electronic and Electrical Materials subject.
- Counseling students on academic and professional probation.

### **Telecommunication Engineer**

*Mar, 2009 - Nov, 2010*

**Viettel Telecom Company, Can Tho City, Viet Nam.**

- Monitoring, resolving and response to technological issues in Network Operation Center.
- Installing, configuring, and maintaining network infrastructure in a large-scale network.
- Collaboration with other departments to initialize, follow and move projects forward as well as fixing up unexpected technical issues in networks.
- Daily report documentation of work, progress, plans and remaining issues.
- Sharing knowledge through technical seminars with teams and other departments.
- Providing technical support for other department in case of incident.

### **Network Engineer (Work package)**

*Jun, 2008 - Mar, 2009*

**Vietnam mobile services company (VMS-Mobifone) - Zone 3, Can Tho City, Vietnam.**

- Monitoring, resolving and response to technological issues in Operation and Maintenance Center (O&M).
- Collaboration with Telecommunication Network companies to initialize, follow up and move projects forward.
- Daily documentation of work and remaining issues.
- Maintaining numerous Base Transceiver Stations and Base Station Controllers in 2G network.
- Testing new mobile services.

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## EDUCATION

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<b>Ph.D. in Electrical and Computer Engineering</b>	<b>2015-2021</b>
Department of Systems and Computer Engineering, Carleton University, Canada	
<b>M.Sc. in Telecommunications Engineering</b>	<b>2012 - 2013</b>
Faculty of Computer Science, University of Sunderland, UK	
<b>B.Eng. Degree in Electronics and Telecommunication</b>	<b>2003 - 2008</b>
College of Engineering Technology, Can Tho University, Vietnam	

## **TEACHING ASSISTANCE – CARLETON UNIVERSITY**

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- SYSC5801F/W - Advanced Topic in Computer Communications (Fall 2016, Winter 2016)
- SYSC5001W – Discrete Simulation/Modelling (LEC) (Winter 2019)
- SYSC2310A – Introduction to Digital Systems (Fall 2017)
- SYSC2004 – Object-Oriented Software Development (LEC) (Fall 2018, Winter 2018, Winter 2019)
- ECOR1606 – Problem Solving and Computers (Winter 2017, Summer 2017)

## **PROFESSIONAL ACTIVITIES - REVIEWER**

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- IEEE Internet of Things Journal
- IEEE Access
- Wiley International Journal of Communication Systems
- Journal of Networking and Network Applications
- IEEE Global Communications Conference
- IEEE Vehicular Technology Conference

## **SCHOLARSHIPS & AWARDS**

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| ● Mekong 1000 Project Scholarship | 2010 |
| ● VIED Scholarship                | 2014 |

## **LIST OF PUBLICATIONS**

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### ***Journals:***

1. Q. Lu, K. Nguyen and C. Huang, "GAONE: A Novel Approach for Online One-stage Virtual Functions Embedding", Journal of Networking and Network Applications, 2021 (to appear).
2. K. Nguyen and C. Huang, "Distributed parallel genetic algorithm for online virtual network embedding," Wiley International Journal of Communication Systems, 23 Dec 2020, pp. e4691, doi: 10.1002/dac.4691.
3. Q. Lu, K. Nguyen and C. Huang, Distributed parallel algorithms for online virtual network embedding applications. Wiley International Journal of Communication Systems, 24 Jan 2020, pp. e4325, doi: 10.1002/dac.4325.

## ***Conferences:***

1. K. Nguyen, Q. Lu and C. Huang, "Joint Node-Link Algorithm for Embedding Virtual Networks with Conciliation Strategy," 2021 IEEE Global Communications Conference (Globecom), Madrid, Spain, 2021 (submitted).
2. K. Nguyen, S. Drew, C.Huang, J.Zhou, "EdgePV: Collaborative Edge Computing Framework for Task Offloading", ICC 2021 - 2021 IEEE International Conference on Communications (ICC), Montreal, Canada, 2021 (to appear).
3. K. Nguyen, S. Drew, C. Huang and J. Zhou, "Collaborative Container-based Parked Vehicle Edge Computing Framework for Online Task Offloading," 2020 IEEE 9th International Conference on Cloud Networking (CloudNet), 2020, pp. 1-6, doi: 10.1109/CloudNet51028.2020.9335809.
4. K. Nguyen, Q. Lu and C. Huang, "Efficient Virtual Network Embedding with Node Ranking and Intelligent Link Mapping," 2020 IEEE 9th International Conference on Cloud Networking (CloudNet), 2020, pp. 1-5, doi: 10.1109/CloudNet51028.2020.9335801.
5. K. T. Nguyen, Q. Lu and C. Huang, "Rethinking Virtual Link Mapping in Network Virtualization," 2020 IEEE 92nd Vehicular Technology Conference (VTC2020-Fall), 2020, pp. 1-5, doi: 10.1109/VTC2020-Fall49728.2020.9348799.
6. Q. Lu, K. Nguyen and C. Huang, "A Novel One-stage Distributed Parallel Embedding for Virtualized Network Environment," in 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, ON, Oct. 2020, pp. 395-400, doi: 10.1109/SMC42975.2020.9282829.
7. K. Nguyen and C. Huang, "An Intelligent Parallel Algorithm for Online Virtual Network Embedding," in 2019 International Conference on Computer, Information and Telecommunication Systems (CITS), Beijing, China, Aug. 2019, pp. 1-5, doi: 10.1109/CITS.2019.8862072.