

Curriculum Vitae et Studiorum Tuan Anh Nguyen

Personal Data

Born	Vietnam 17-October-1981	Add.	Distributed Systems, RUG Nijenborgh 9, 9747 AG Groningen, NL
Citizenship	Vietnam	tel.	+31-50-363-5108
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Current Position

since Sept. 2010 *Ph.D. student at Distributed Systems Group, University of Groningen, the Netherlands.*

Fields of Research Interest

Pervasive computing, Wireless sensor networks, Information processing in sensor networks, Activity recognition, Smart Environments, Building energy and comfort management systems.

Research

Peer-Reviewed Journal Articles

T. A. Nguyen, A. Raspitzu and M. Aiello (2013) **Ontology-based Office Activity Recognition with Applications for Energy Savings**. *Journal of Ambient Intelligence and Humanized Computing*. 15 pages, published online. URL: <http://dx.doi.org/10.1007/s12652-013-0206-7>

T. A. Nguyen and M. Aiello. **Energy Intelligent Buildings based on User Activity: a Survey**. *Elsevier Journal of Energy and Buildings*. 56:244-257. 2013.

I. Georgievski, V. Degeler, G. A. Pagani, T. A. Nguyen, A. Lazovik, and M. Aiello. **Optimizing Energy Costs for Offices Connected to the Smart Grid**. *IEEE Transactions on Smart Grid*. 3:2273-2285. 2013.

Proceedings

F. Nizamic, T. A. Nguyen, A. Lazovik and M. Aiello (2014) **GreenMind - An Architecture and Realization for Energy Smart Buildings**. In Proceedings of the 2nd International Conference on ICT for Sustainability (ICT4S). To appear. *Best Paper Award Nominee*.

T. A. Nguyen, V. Degeler, R. Contarino, A. Lazovik, D. Bucur, and M. Aiello (2013) **Towards Context Consistency in a Rule-Based Activity Recognition Architecture**. In Proceedings of the International Symposium on Ubiquitous Intelligence and Autonomic Systems. pp 625-630.

I. Georgievski, T. A. Nguyen, and M. Aiello (2013) **Combining Activity Recognition and AI Planning for Energy-Saving Offices**. In Proceedings of the IEEE International Conference on Ubiquitous Intelligence and Computing. pp 238-245.

T. A. Nguyen, D. Bucur, M. Aiello and K. Tei (2013) **Applying Time Series Analysis and Neighbourhood Voting in a Decentralised Approach for Fault Detection and Classification in WSNs**. In Proceedings of The 4th International Symposium on Information and Communication Technology. pp 234-241.

T. A. Nguyen, M. Aiello and K. Tei (2013) **A Decentralized Scheme for Fault Detection and Classification in WSNs**. In Proceedings of The 1st IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA 2013, Work in Progress session). pp 1-4.

E. U. Warriach, K. Tei, T. A. Nguyen and M. Aiello (2012). **Fault Detection in Wireless Sensor Networks: a Hybrid Approach**. In Proceedings of the 11th ACM Conference on Information Processing in Sensor Networks (IPSN'12 POSTER Session).

T. A. Nguyen and M. Aiello (2012). **Beyond Indoor Presence Monitoring with Simple Sensors**. In Proceedings of the 2nd International Conference on Pervasive and Embedded Computing and Communication Systems. pp 5-14.

T.A. Nguyen, Q.A. Tran, X.T. Nguyen (2010). **Spam Filter based on Dynamic Sender Policy Framework**. In Proceedings of the 2nd International Conference on Knowledge and Systems Engineering. pp 224-228.

X.T. Nguyen, Q.A. Tran, T. A. Nguyen (2008). **Semi-supervised learning approach on filtering spam based on email network**. In ICT.rda'08 (Research, Development and Application on Information and Communication Technology Symposium) .

T.A. Nguyen, Q.A. Tran, N.B. Nguyen (2008). **Vietnamese Spam Detection based on Language Classification**. In Proceedings of the 2nd International Conference on Communications and Electronics. pp 74-79.

Technical Reports

I. Georgievski, V. Degeler, G. A. Pagani, T. A. Nguyen, A. Lazovik and M. Aiello (2011). **Optimizing Offices for the Smart Grid**. Technical Report JBI preprint 2011-12-01, University of Groningen, November 2011.

T.A. Nguyen, A. Raspitzu and M. Aiello (2012). **Ontology of Office Activities**. Technical Report JBI preprint 2012-12-09, University of Groningen, December 2012.

Posters and Presentations

V. Degeler, T. A. Nguyen, A. Lazovik and M. Aiello (2013). **Probabilistic Rule-Based Activity Recognition**. Poster at the Oberseminar'13, Groningen, the Netherlands, 2013.

P. Tarjan, T.A. Nguyen and M. Aiello (2012). **Management of Home Electric Power Consumption**. Poster at the Oberseminar'12, Dagstuhl, Germany, 2012.

T.A. Nguyen (2011). **Efficient Sensing of Occupant Location and Activity in Office Env. for Energy Savings**. Talk at the Oberseminar'11, Spoleto, Italy, 2011.

Projects

Sustainable Buildings I am currently a co-leader of the Sustainable Buildings Project. Our first two Proof-of-Concept projects are 1) “The Bernoulliborg - The building of Sustainability” and 2) “Sensible Heating Operation Solutions for Heymansgebouw”. In these projects, we strive to apply our smart solutions to two buildings of the University of Groningen to make them more energy-efficient while enhancing user comfort and productivity. Project website: <http://sustainablebuildings.nl/>

EnSO and GreenerBuildings I am also actively involved in EnSO and GreenerBuildings projects. The Energy Smart Offices (EnSO) project funded by NWO. Project website: <http://www.ensoffices.nl/>. The GreenerBuildings is an ICT funded under the FP7 which develops an integrated solution for energy-aware adaptation of public buildings. Project website: <http://www.greenerbuildings.eu/>.

Honours, Awards, & Funds

2014 Green Mind Award 2014: 2nd place and €100.000 grant for the project “Sensible Heating Operation Solutions” and 3rd place for the project “Sustainable Buildings 2.0: Duisenberg – The Building of Sustainability” <http://www.rug.nl/news/2014/06/prijnsuitreiking>.

2013 NII internship. Internship to work as a visiting researcher at National Institute of Informatics (NII), Tokyo, Japan.

2012 Green Mind Award 2012: €100.000 grant for project “Bernoulliborg: The building of sustainability” (the best out of 62 submissions) <http://www.rug.nl/about-us/who-are-we/sustainability/green-mind-award/>

2010 Excellent Teacher Award of Hanoi University. Awarded by Executive board of the Trade Union of Hanoi University, 2010.

2008–2009 Manager of Research Project: “Research and develop Anti-Virus and Anti-DDoS systems for Servers” funded by Hanoi (capital) Department of Science and Technology. Research Project No. 26-28/2008/TMDT-KHCN.

2008 Member of Research Project: “Research on Dynamic Sender Policy Framework and its application on anti-spam and anti-phishing”, supported by the Ministry of Education and Training of Vietnam, Research Project No. B 2008-26-10

2008 Indian ITEC scholarship, 2008, <http://itec.mea.gov.in/>

2007 Manager of Research Project: “Research and develop Anti-spam System on Mail Servers”, funded by Hatay (province) Department of Science and Technology, 2007. Research Project No. 14-03TT/TMDT-KHCN.

Education

sept. 2004 – jul. 2006 *M.Sc. in Computer Science, Hanoi University of Science and Technology, Hanoi, Vietnam, 10% of the best students among 60 students in the class.*

sept. 1999 – jul. 2004 *B.S. Computer Science, Hanoi University of Science and Technology, Vietnam, average grade 7.56 (a scale of 5 to 10), 15% of the best students of the generation 1999/2004*

Employment

sept. 2010 – present Ph.D. student at Distributed Systems Group, University of Groningen, The Netherlands 2010–present.

apr. 2007 – sept. 2010 Lecturer at Faculty of Information Technology, Hanoi University, Vietnam 2007–2010.

jul. 2004 – apr. 2007 Systems Administrator at Bach Khoa Network Information Centre, Hanoi University of Science and Technology, Vietnam 2004–2007.

Academic duties

Auxiliary reviewer of IEEE Transactions on Smart Grid; PECCS 2011, SOCA 2011, SOCA 2012, CLOUD 2011, CLOUD 2012, ESOC 2012, IC2IT 2012, ICWS 2012, WISE 2012, WAS4FI 2012, CAMAD 2013, ICWS 2013, SoICT 2013, IC2IT 2014, ICWS 2014, CLOUD 2014, and WISE 2014 conferences.

Teaching

Each course is an one semester course (ss = spring semester, fs = fall semester)

University of Groningen, NL

Web and cloud computing (fs '13) - Teaching assistant.

Hanoi University, VN

Data Structures and Algorithms (fs '07, ss '08, ss '09, ss '10)

Object Oriented Programming (fs '08)

Information Technology Fundamentals (ss '07)

Computer Architecture and Operating Systems (ss '09)

Supervision & Assistance

University of Groningen, NL

“A Real-Time Energy Monitoring Metering and Visual Display System”. Pascal Bouwers. Research Internship for Master students, 2014.

“Studying Feasibility of Machine Learning Approaches to Perform Real-time Activity Recognition Tasks”. Cesare Valitutto. Research Internship for Foreign Master students, 2014.

“Fault Detection and Management in Wireless Sensor Networks using Rule-based and ARIMA Methods”. Jan Kramer and Bas de Bruijn. Bachelor of Science Thesis, 2014.

“Unified Gateway for Plugwise and TelosB-based Sensor Network”. Rosario Contarino. Research Internship for Foreign Master Student, 2013.

“Ontology of Office Activities”. Andrea Raspitzu. Research Traineeship for Foreign Undergrads, 2012.

“Plugwise Network Management Analysis”. Marcel Jillings and Sijmon Heitmeijer. Research Internship for Master Student, 2012.

“Wireless Sensor Networks and TinyOS”. Edwin-Jan Harmsma. Research Internship for Master Student, 2011.

“User Energy Awareness”. Karin Dirksen and Maike Jaspers. Honours college first year project, 2011.

“Sensor-based Human Activity Recognition to design Greener Buildings”. Sharique Arshi. Foreign Research Internship for Foreign Undergrads, 2011.

Hanzehogeschool Groningen, NL

“Indoor Energy Awareness: Office & Home Appliances”. Péter Tarján. Bachelor’s Thesis, 2012.

“Using Simple Sensors for Activity Recognition”. Edser Broers and Remco Jonkman. Bachelor’s Thesis, 2012.

“A Survey on Typical Office Activities & Their Recognition”. Jeroen Jager and Dimitri de Jong. Bachelor’s Thesis, 2011.