

Huy Nguyen

CONTACT INFORMATION	Wireless Research System Group Department of Computer Science University of Houston Houston, Texas 77204	office : +1 713-440-0054 mobile : +1 281-673-5351 hanguyen5@uh.edu http://www2.cs.uh.edu/~nahuy/
RESEARCH INTERESTS	Inference on Complex Networks: information diffusion on social network, wireless sensor network monitoring, anomaly and intrusion detection. Theory: graph theory, approximation and optimization algorithm, machine learning.	
EDUCATION	University of Houston , Houston, Texas Aug. 2009 – present <i>Doctor of Philosophy (Ph.D.) in Computer Science</i> <ul style="list-style-type: none">• Current GPA: 3.83/4.00• Expected graduation: Spring 2013• Advisor: Prof. Rong Zheng Chonnam National University , Gwangju, South Korea Mar. 2007 – Mar. 2009 <i>Master of Engineering (M.E.) in Computer Science</i> <ul style="list-style-type: none">• Accumulated GPA: 4.44/4.50• Thesis: “<i>BASMIN: A Way to Maximize Network User Happiness</i>”• Advisor: Prof. Deokjai Choi University of Science , VNUHCM, Ho Chi Minh City, Vietnam Sep. 2002 – Sep. 2006 <i>Bachelor of Science (B.S.) in Computer Science</i> <ul style="list-style-type: none">• Accumulated GPA: 8.37/10.0• Thesis: “<i>VnElearning: An Integrated Open Source Elearning System</i>”• Advisor: Prof. Minh-Triet Tran	
WORKING EXPERIENCE	University of Houston , Houston, Texas Aug. 2009 – present <ul style="list-style-type: none">• Research Assistant at Wireless Research System Group• Wireless Sensor Network: Network monitoring, quality assurance, network topology inference.• Cognitive Radio Network: Primary user sensing and separating, blind identification of transmission technologies.• Online Social Network: User influence maximization, measurement and prediction. Idera , Houston, Texas May 2012 – Aug. 2012 <ul style="list-style-type: none">• Summer Research Intern at SQL Team, working on SQL diagnostic manager, a performance monitoring and diagnostics solution for SQL Servers.• Optimized front-end modules’ implementation.• Built a DB harness tool, which accelerates the development process and helps QAs in testing the releasing product.• Built Rally Apps, which improves team collaboration and facilitates project management. Hong Kong Polytechnic University , Kowloon, Hong Kong Nov. 2011 – Feb. 2012 <ul style="list-style-type: none">• Exchanged Research Staff at Department of Computing.• Social media search and mining, in cooperation with Prof. Wenjie Li. Chonnam National University , Gwangju, South Korea Mar. 2007 – Feb. 2009 <ul style="list-style-type: none">• Research Assistant at Advanced Network Lab.• Network anomaly and intrusion detection using Cisco NetFlow v5 and data mining.• Multi-service IP networks quality assurance.• Smart home context awareness and implementation. ELCA Information Technology , Ho Chi Minh City, Vietnam Sep. 2006 – Feb. 2007 <ul style="list-style-type: none">• Software Engineer on SecuTix 360° project, an integrated ticketing solution, developed for professionals working in the live entertainment, events and leisure industries.• Built front-end modules and wrote unit tests for SecuTix web UI.• Rebuilt the connector interface between the web UI and other system components, significantly increase the interaction speed between the components.	

COSC7388: Advanced Distributed Computing

Spring 2011

- This graduate course covers topics on mobile computing and cloud computing with focus on the synergy between the two.

COSC6377: Computer Networks

Fall 2009

- This graduate course emphasizes on the algorithms, protocols and performance evaluation of the Internet.
- Topics include routing, congestion control, network management, multimedia networks and selected materials in wireless networks.

Server Administration:

- Various Linux distributions, Microsoft Windows, VMware

Programming Languages:

- Proficient: C/C++, C#, Java, PHP, Matlab
- Experienced: ASP, JSP, HTML, XML, Javascript, SQL, Python, Pascal, Fortran

Database Systems:

- Microsoft SQL Server, MySQL, Postgre SQL, Oracle, SQLite

Miscellaneous Technologies:

- Windows Azure Platform, SQL Azure, Microsoft Hawaii Services (Cloud Computing)
- Silverlight XAML (Windows Mobile Programming)
- SVN/CVS (Source Control)
- Agile Software Development

JOURNAL ARTICLES

- Huy Nguyen and R. Zheng “On Budgeted Influence Maximization in Social Networks”, *IEEE Journal on Selected Areas in Communications - Special Series on Network Science (JSAC NS)*, accepted for publication. (**Impact factor = 3.413**)
- Huy Nguyen and R. Zheng “A Binary Independent Component Analysis Approach to Tree Topology Inference”, *IEEE Transactions on Signal Processing (TSP)*, accepted for publication. (**Impact factor = 2.628**)
- Huy Nguyen, G. Scalosub, and R. Zheng “On Quality of Monitoring for Multi-channel Wireless Infrastructure Networks”, *IEEE Transactions on Mobile Computing (TMC)*, accepted for publication. (**Impact factor = 2.283**)
- Huy Nguyen, G. Zheng, Z. Han, and R. Zheng “Binary Inference for Primary User Separation in Cognitive Radio Networks”, In *IEEE Transactions on Wireless Communications (TWC)*, accepted for publication. (**Impact factor = 2.586**)
- Y. Huang, M. Esmalifalak, Huy Nguyen, R. Zheng, Z. Han, H. Li, and L. Song “Bad Data Injection in Smart Grid: Attack and Defense Mechanisms”, In *IEEE Communications Magazine (ComMag)*, Vol 51, Issue 1, January 2013. (**Impact factor = 3.785**)
- Huy Nguyen, and R. Zheng, “Binary Independent Component Analysis with OR Mixtures”, In *IEEE Transactions on Signal Processing (TSP)*, Vol 59, Issue 7, July 2011. (**Impact factor = 2.628**)
- Huy Nguyen and D. Choi, “Network Anomaly Detection: Flow-Based or Packet-Based Approach?”, In *Chonnam National University Networking Journal*, June 2008.

CONFERENCE PROCEEDINGS

- Huy Nguyen, and R. Zheng, “Influence Spread in Large-Scale Social Networks – A Belief Propagation Approach”, In *Proc. of The 23rd European Conf. on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD)*, September 24-28, Bristol, UK, 2012. (**Acceptance rate = 23%**)
- Huy Nguyen, N. Nguyen, Z. Han and R. Zheng, “Binary Blind Identification of Wireless Transmission Technologies for Wide-band Spectrum Monitoring”, In *Proc. of The 54th IEEE Global Communication Conf. (GLOBECOM)*, December 5-9, Houston, Texas, USA, 2011. (**Acceptance rate = 36.7%**)
- M. Esmalifalakz, Huy Nguyen, R. Zheng, and Z. Han “Stealth False Data Injection using Independent Component Analysis in Smart Grid”, In *Proc. of The 2nd IEEE Int. Conf. on Smart*

Grid Communications (SmartGridComm), October 17-20, Brussels, Belgium, 2011. (**Acceptance rate = 40.1%**)

- A. Chhetri, Huy Nguyen, G. Scalosub, and R. Zheng, “On Quality of Monitoring for Multi-channel Wireless Infrastructure Networks”, In *Proc. of The 11th ACM Int. Symp. on Mobile Ad Hoc Networking and Computing (MOBIHOC)*, September 20-24, Chicago, Illinois, USA, 2010. (**Acceptance rate = 17.7%**)
- Huy Nguyen, R. Zheng, and Z. Han, “Binary is Good: A Binary Inference Framework for Primary User Separation in Cognitive Radio Networks”, In *Proc. of The 5th Int. Conf. on Cog. Radio Oriented Wireless Networks and Comm. (CrownCom)*, June 9-11, Cannes, France, 2010. (*invited paper*)
- Huy Nguyen, T. V. Nguyen, and D. Choi, “How to Maximize User Satisfaction Degree in Multi-services IP Networks”, In *Proc. of The 1st IEEE Asian Conf. on Int. Info. and DB Systems (ACIIDS)*, April 1-3, Quang Binh, Vietnam, 2009. (**Acceptance rate < 30%**)
- T. V. Nguyen, Huy Nguyen, and D. Choi, “Development of a Context Aware Virtual Smart Home Simulator”, In *Proc. of The 3rd IEEE Int. Conf. on Ubi. Info. Technologies and Applications (ICUT)*, December 18-20, Ho Chi Minh City, Vietnam, 2008.
- Huy Nguyen and D. Choi, “Application of Data Mining to Network Intrusion Detection: Classifier Selection Model”, In *Proc. of The 11th IEEE Asia-Pacific Network Operations and Management Symp. (APNOMS)*, October 22-24, Beijing, China, 2008. (**Acceptance rate = 23.7%**)
- T. V. Nguyen, W. Lim, Huy Nguyen, and D. Choi, “Context Awareness Framework based on Contextual Graph”, In *Proc. of The 5th IEEE and IFIP Int. Conf. on Wireless and Optical Comm. Networks (WOCN)*, May 5-7, Surabaya, Indonesia, 2008.
- Huy Nguyen, T. V. Nguyen, D. Kim, and D. Choi, “Network Traffic Anomalies Detection and Identification with Flow Monitoring”, In *Proc. of The 5th IEEE and IFIP Int. Conf. on Wireless and Optical Comm. Networks (WOCN)*, May 5-7, Surabaya, Indonesia, 2008.
- T. V. Nguyen, W. Lim, Huy Nguyen, and D. Choi, “Context Ontology Implementation for Smart Home”, In *Proc. of The 2nd IEEE Int. Conf. on Ubi. Info. Technologies and Applications (ICUT)*, December 18-20, Bali, Indonesia, 2007.

MISCELLANEOUS

- Huy Nguyen and R. Zheng “On Budgeted Influence Maximization in Social Networks”, *University of Houston Ph.D. Showcase Event*, February 8, 2013. (**Second best poster award**)

SELECTED AWARDS

NSMAA Eckhard Pfeiffer-Alumni Scholarship, 2012, 2013

Texas Public Educational Grant (TPEG), 2011, 2012, 2013

Hong Kong Polytechnic University Exchange Research Student Scholarship, 2011

WiSeR Best Student of the Year, 2010, 2011

Chonnam National University Global Scholarship, 2009

- Top 3% students of the Chonnam National University

Institute of Information Technology Assessment (IITA) Scholarship, 2007, 2008

- Awarded by the Korean Government to only 50 foreign students per year in South Korea

The University of Natural Sciences’ Roll of Honor, 2006

- Top 5 students of the University of Sciences

TMA Scholarship, 2006

- Best student of the year (ranked 1st/450) from the Dept. of C.S., University of Sciences

REFERENCES

Rong Zheng (advisor)

Associate Professor

Department of Computing and Software

McMaster University

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Zhu Han

Associate Professor

Department of Electrical and Computer Engineering

University of Houston

Email: zhan2@uh.edu