ANH-DUY VU

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PROFILE

- Experience in autonomous mobile robots (especially UAVs.)
- Experience in distributed systems: system modeling, runtime monitoring, formal verification, and algorithm design.
- Experience in Linux Kernel development.
- Experience in programming with C, C++, and Python.
- Ability to work independently with minimal supervision.

EDUCATION QUALIFICATIONS

- 2015 – 2019 Ph.D. Computer Science, McMaster University, Hamilton, ON, Canada.
- 2010 – 2012 M.Sc, Computer Science, Kookmin University, Seoul, South Korea.
- 2004 – 2008 B.Sc. Information Technology, VNUHCM-University of Science, Ho Chi Minh, Viet Nam.

WORK EXPERIENCE

Research Assistance (Ph.D.)   [09-2015 – To Present]
  McMaster University, Canada
- Working on distributed systems and autonomous mobile vehicles (especially UAVs.)
- Designing algorithms for optimizing energy consumption for UAVs.
- Designing and executing experiments on UAVs.

Research Engineer   [08-2012 – 08-2015]
  UNIINFO, South Korea
- Worked on Linux Kernel (especially scheduler, power management framework, and system calls.)
- Designed and implemented energy-efficient scheduling algorithms in C.
- Designed and executed experiments.

Research Assistance (M.Sc)   [03-2010 – 07-2012]
  Koomin University, South Korea
- Worked on Wireless Sensor Networks (WSNs) and Linux Kernel.
- Designed algorithms for detecting intruders using various of passive infrared (PIR) and Doppler sensors.
- Proposed a new security mechanism for Android-powered devices.
- Designed and executed experiments.

Software Engineer   [07-2009 – 02-2010]
  FSoft Hochiminh, Vietnam
- Worked on a dedicated board of Magnetic Resonance (MR) machines.

- Designed and implemented simulation software in C for VxWorks (a real-time operating system.)

Lab Engineer   [07-2008 – 06-2009]
    FSoft Hochiminh, Vietnam
- Worked on G1 phone (the first Android phone of Google) and Beagle board.
- Analyzed Android framework, ported it to other hardware and investigated its real-time capabilities.

HONORS AND ACHIVEMENTS

- 1st place in the 2nd CAS Graduate student poster and demo competition, McMaster University.
- Full tuition fee scholarship for Master program from Kookmin University, South Korea

REASERCH PUBLICATIONS

- AD Vu, R Medhat, B Bonakdarpour, "Managing the security-energy tradeoff in distributed cyber-physical systems." Proceedings of the 10th ACM/IEEE International Conference on Cyber-Physical Systems. ACM, 2019.
- "The Simple Mandatory Access Control for Android-Powered Devices." Master dissertation, 2012.
- AD Vu, JI Han, YM Kim, "A Security enhancement for Android's Root File System." CNSI 2012, 2012.
- AD Vu, JI Han, YM Kim, "Solutions for Adjusting SELinux To Android-Powered Devices." Proceedings of the KAIS Fall Conference, 2012.
- AD Vu, JI Han, HA Nguyen, YM Kim, EJ Im, "A homogeneous parallel brute force cracking algorithm on the GPU." ICTC 2011. IEEE, 2011.
- YM Kim, AD Vu, JI Han, "Tracking a moving target in wireless sensor networks using PDR sensors." The International Conference on Information Networking 2011 (ICOIN2011). IEEE, 2011.
- AD Vu, JH Oh, JI Han, YM Kim, "A detection and tracking system based on MIMO Doppler radar sensor." ICTC 2011. IEEE, 2011.
- YM Kim, JH Oh, AD Vu, JI Han, JW Kim, JS Jeon, SM Lee, JI Han, "Long range detection using a PDR sensor combined with MIMO antenna." 2010 International Conference on Information and Communication Technology Convergence (ICTC). IEEE, 2010.
- JI Han, AD Vu, JW Kim, JS Jeon, SM Lee, YM Kim, "The fundamental functions and interfaces for the ITU-T USN middleware components." 2010 International Conference on Information and Communication Technology Convergence (ICTC). IEEE, 2010.

TOOLS, TECHNIQUES

- Programming Languages: C, C ++, and Python
- Manuscripts and Presentation: Microsoft Office tools, and Latex
- Version Controls: SVN, Git
- Operating Systems: Microsoft Windows, Linux