PERSONAL INFORMATION

Full name: Nhan Duc-Thanh Nguyen
Home address: Trung Dong, Duy Trung, Duy Xuyen District, Quang Nam Province, Vietnam
Postal address: 201 33-3 Jeongja-dong Bundang-gu Seongnam-si, South Korea (13609)
Email: nguyendtnhan@gmail.com
Tel: +8210-6245-1502

RESEARCH INTERESTS

I am interested in pattern recognition, Machine learning, Sound/speech classification, sound event detection and signal processing.
I have passion to implement Machine Learning model into applied applications across interdisciplinary field especially in health care and biomedical engineering.
I have been published several papers related to classification and Machine learning.
Google Scholar:
https://scholar.google.com/citations?user=njQgo1wAAAAJ&hl=en
Github:
https://github.com/babibo180918

EDUCATION

Kyung Hee University, Global campus *Sep 2010 - Aug 2012*
M.S. in Electronics & Information Engineering
Major in Robotics

Thesis: *Posture-Gesture Combined Recognition for Human Robot Interaction*
Overall GPA: 3.863/4.3

Ho Chi Minh University of Technology, Vietnam *Sep 2005 - Jul 2010*
at PFIEV (Programme de Formation d'Ingénieurs d' Excellence au Vietnam), affiliated with Telecom Bretagne.
B.S. in Electrical & Electronics Engineering
Major in Telecommunication

Thesis: *Design and implement water pressure alarm system using GPRS Modem via microcontroller ARM LM3S2965*
Overall GPA: 7.44/10.0

EXPERIENCE

ForteMedia, Inc Jan 2017 - Oct 2020
Sr. DSP Engineer *Seongnam, S.Korea*

- Develop and maintain audio processing algorithms: noise suppression, voice activity recognition, spatial filter, beamforming, acoustic echo cancellation, noise detection
- Apply Neural Network to classify noisy signals and voice signals
- Implement and optimize algorithms into different wide-range platforms: intel processor, ARM, Qualcomm QDSP in Samsung smart phone using Assembly and C language.

Korea Institute of Building Energy Technology Oct 2015 - Dec 2016
Sr. RnD Engineer *Seoul, S.Korea*

- Develop secure camera driver module in Linux system that used for Soldier side meeting to secure protected information (image, text, map) in military
- iOS, android client application developer

Areschan, Inc Sep 2012 - Sep 2015
RnD Engineer *Seoul, S.Korea*

- Develop Audio, Video, Image, E-book Search Engine in Linux server: Extract fingerprinting (frequency and energy for audio, histogram for image and e-book) and make signature.
- Work on Audio, video, Image detection and classification
- Make Audio, Video raw database by making Audio, Video Decoder using FFMPEG library.
- Improve Audio search algorithm
- Develop client app in android to detect Audio, Video copyrighted Contents

KyungHee University Sep 2010 - Aug 2012
Researcher *Suwon, S.Korea*

- Team member of Development of Multiverse supported Distributed Inference Activity Recognition Middleware (DmDIAR): Develop technologies to assist human life through the automatic recognition of human activities and human contexts
- Develop and implement Gesture Recognition module using Kinect camera
- Smart and Natural Human-Computer Interaction (SN-HCI): modify the interaction system between human and computer, devices, making robot tightly like human and towards more natural, friendlier human-computer interactions

AWARDS

1. Korean Government IT Scholarship (NIPA) for Master program, 2010-2012
2. Annual scholarships of Ho Chi Minh city University of Technology.
3. "Honorific prize" Vietnam Mathematical Olympiad for high school, 2005.

PUBLICATIONS

Journal Publications

1. **Nhan Nguyen-Duc-Thanh**, S.Y. Lee and D.H. Kim, "Two-stage Hidden MarkovModel in Gesture Recognition for Human Robot Interaction" Int. Journal of Adv. Robotic System: Human Robot Interaction (SCIE), Vol. 9, 39:2012.

Conference Publications

1. **Nhan Nguyen-Duc-Thanh**, Daniel Stonier, SungYoung Lee, DongHan Kim, "A New Approach for Human-Robot Interaction Using Human Body Language", International Conference on Convergence and Hybrid Information Technology, Daejeon, Korea. September 2011 (LNCS 6935)
2. **Nhan Nguyen-Duc-Thanh**, SangYup Lee, Lan Anh Trinh, Sang Yep Nam, DongHan Kim, "A Method of Human Posture Recognition Based on Skeletal Feature Analysis", Proceeding on International Conference on Electronics, Information and Communication, Seoul, Korea. February 2012 (ICEIC 2012)

SPECIALTIES

Research Background

- Good background on mathematics, probabilistic and statistics for recognition and machine learning: HMM, neutron network, CRF
- Deep knowledge Human-Robot, Human-Machine Interaction
- Good background in Audio Video processing algorithm in classification and recognition

Technical skills

- Proficient in Matlab, Python programming and implementation Machine Learning model using Tensorflow framework.
- Proficient in C/C++ Programming (more than 6 years) in different platforms such as Linux, MS-Windows, Android NDK.
- Experience in implement algorithms in DSP such as ARM and Qualcomm-DSP processor
- Working experience in OpenNI, OpenCV libraries, FFMPEG, linux, Git, github tools