Kim Ngo Curriculum Vitae

Ph.D Student
M.Sc. Electrical Engineering

Katholieke
Universiteit Leuven
Kasteelpark Arenberg 10
B-3001 Heverlee
+32 487 558 612
+32 16 32 1797
FAX +32 16 32 1970
kngo@esat.kuleuven.be



SUMMARY

More than 5 years experience working with digital signal processing algorithms for speech and audio applications such as hearing aids, automatic speech recognition, and audio classification using MATLAB/Simulink and C/C++

Excellent communication skills, team player, result oriented

ACADEMIC CAREER

Sept.2006–now Dept. of Electrical Engineering, Katholieke Universiteit Leuven, Belgium
Research Assistant (with Prof. Marc Moonen)
Research on: digital signal processing for hearing aids

Mar.–June 2010 Dept. of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, USA
Visiting Researcher (with Prof. Douglas L. Jones)
Research on: robust beamformers for small arrays with low complexity

Mar.–June 2009 Dept. of Electronic Systems, Aalborg University, Denmark
Visiting Researcher (with Prof. Søren Holdt Jensen and Prof. Mads Græsbøll Christensen)
Research on: pitch estimation and sinusoidal modelling of speech

EDUCATION

now Ph.D Student in Electrical Engineering, Katholieke Universiteit Leuven, Belgium
Thesis: "*Digital signal processing algorithms for noise reduction, dynamic range compression, and feedback cancellation in hearing aids*"
(supervised by Prof. Marc Moonen)

June 2006 M.Sc. in Electrical Engineering, Aalborg University, Denmark
Thesis: "*MFCC Based Robust Audio Classification Using The Multivariate Autoregressive Model*"
(supervised by Prof. Søren Holdt Jensen)

June 2004 B.Sc. in Electrical Engineering, Aalborg University, Denmark
Thesis: "*Noise Robust Automatic Speech Recognition with Adaptive Quantile Based Noise Estimation and Speech Band Emphasizing Filter Bank*"
(supervised by Prof. Børge Lindberg)

TECHNICAL SKILLS

Digital signal processing for speech, audio and hearing aid applications
Adaptive filtering (FIR, IIR), multirate systems, and filter banks (FFT)
Single- and multi-channel noise reduction (MWF, GSC, MVDR beamformer, VAD)
Dynamic range compression (audibility, critical bands, AGC)

Adaptive feedback/echo cancellation (LMS, RLS)
Speech recognition and Audio classification (MFCC, HMM, GMM)
Basic knowledge in psychoacoustic principles (masking properties)

AWARDS, GRANTS AND HONORS

Aug. 2010	Awarded a travel grant (European Signal Process. Conf., Aalborg, Denmark) by research foundation – Flanders (FWO – Vlaanderen), Belgium
Sept. 2009	Awarded the Katholieke Universiteit Leuven Ph.D. scholarship (22 months)
Sept. 2006	Awarded the EST-SIGNAL Marie Curie fellowship (Ph.D. scholarship, 36 months)
Apr. 2006	Winner of FOSS challenge, Nationwide graduate student competition in chemometrics

TEACHING/ASSISTANCE

Sept.2006–now	Systems and Control Theory (exercises + tutoring)
Sept.2006–now	Digital Signal Processing (student projects supervision)
	Topics: Spectral subtraction, Wiener filter, Source localization, Time delay estimation

ADDITIONAL INFORMATION

Place of birth	Esbjerg, Denmark
Date of birth	July 16, 1982
Citizenship	Danish
Gender	Male
Mother-tongue(s)	Danish and Vietnamese
Other-language(s)	Fluent in English, Good in German, Basic in Dutch
Webpage	http://homes.esat.kuleuven.be/~kngo/
Computer skills	Linux, Unix, All Microsoft operating systems, Microsoft Office (Word, Excel, Power point etc.), Latex
Software	Matlab & Simulink, C/C++, Java, HTML
Memberships	Institute of Electrical and Electronics Engineers (IEEE), Student member
	European Association for Signal Processing (EURASIP), Student member

RESEARCH COLLABORATORS

Katholieke Universiteit Leuven, Dept. of Electrical Engineering, Belgium:
Prof. Marc Moonen, Dr. ir. Ann Spriet, Dr. ir. Toon van Waterschoot

Katholieke Universiteit Leuven, Dept. of Neurosciences, Belgium:
Prof. Jan Wouters

Aalborg University, Dept. of Electronic Systems, Denmark:
Prof. Søren Holdt Jensen

Aalborg University, Dept. of Media Technology, Denmark:
Prof. Mads Græsbøll Christensen

University of Illinois, Dept. of Electrical Engineering and Computer Engineering, USA:
Prof. Douglas L. Jones

REFERENCES

Prof. Marc Moonen
Dept. of Electrical Engineering, ESAT-SCD
Katholieke Universiteit Leuven
Kasteelpark Arenberg 10
3000 Heverlee (Leuven), Belgium
+32-16-321060
marc.moonen@esat.kuleuven.be

Prof. Søren Holdt Jensen
Department of Electronic Systems
Aalborg University
Niels Jernes Vej 12
9220 Aalborg, Denmark
+45 9940 8617
shj@es.aau.dk

Prof. Douglas L. Jones
Dept. of Electrical Engineering and Computer Engineering
University of Illinois at Urbana-Champaign
1406 W. Green St.
Urbana, Illinois 61801, USA
(217) 244-6823
dl-jones@illinois.edu

UPDATED

May 1th, 2011