AGHILAS SINI

615 Rue du Jardin Botanique ◇ Villers les Nancy , 54600 France

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Research Interest

Speech and Language Processing, Machine learning.

Education

Academic background

2014 **Master 2 - Artificial Intelligence, Pattern Recognition and Robotics**
Université Paul SABATIER- TOULOUSE. France

2013 **Master 1 - Real Time Systems Engineering**
Université Paul SABATIER- TOULOUSE. France

2011 **B.Sc - Control System and Automation**
Université Mouloud MAMMERI- TIZI OUZOU. Algeria

Workshop and Summer School attended

Nov 2015 **Workshop on "Feedback in Pronunciation Training"**
Hofgut Imsbach, Northern Saarland, Germany

Jul 2016 **Speech Synthesis: Advancement in Modern Speech Synthesis Engines**
University of Crete, Heraklion, Crete, Greece

Professional Experience

As a research engineer

Jan 2016 present **IFCASL Project (Individualized Feedback for Computer-Assisted Spoken Language Learning)**
LORIA-INRIA Laboratory Nancy.
- Automatic pronunciation diagnosis and error detection for Germans learning french
- Modification and re-synthesis of learner audio samples using teacher audio samples based on Pitch Synchronous Overlap and Add algorithm
- Feedback to correct devoicing of final consonants in French spoken by German learners

Jan 2016 Mar 2016 **Lecturer in Web Programming**
IUT Charlemagne, Université de Lorraine, Nancy
- JavaScript, Ajax, JQuery. For second year post baccalaureat students

Nov 2014 Jan 2016 **ORTOLANG Project Open Resources and TOols for LANGuage**
LORIA-INRIA Laboratory Nancy.
- Development of syntactic-semantic analyser tool called J-Safran for spoken documents in French language
- Contributing to development of JTRANS tool for semi-automatic alignment of speech and textual corpus
- Contributing to development of JSnoori an Interactive tool for speech signal processing and phonetics

Internship (Master Thesis)

Mar 2014 – Aug 2014 **Mapping of a sound environment for a mobile robot**
LORIA-INRIA Laboratory Nancy.
Control of a mobile robot movements to localize a sound source as quickly as possible. The belief about the source position is represented by a discrete grid and a dynamic programming algorithm was introduced to find the optimal robot motion minimizing the entropy of the grid .

Publications

(1) E. Vincent, A. Sini and F. Charpillet, "Audio source localization by optimal control of a mobile robot," Acoustics, Speech and Signal Processing (ICASSP), 2015 IEEE International Conference on, South Brisbane, QLD, 2015, pp. 5630-5634.

(2) S. Ghosh, A. Sini, Y. Laprie and C. Fauth, "L1-L2 interference: the case of final devoicing of French voiced fricatives in final position by German learners". To appear in Proceedings of Interspeech 2016, San Francisco.

Activities & Independent Courses

Other Activities

- Data collection for IFCASL Project
- Member of Deep Learning Discussion Group at LORIA-INRIA
- Volunteer for MRI Data Collections
- Hosted the booth for demonstration of tools in "Village des Sciences" at LORIA

Online Certificate Courses

Oct 2015 – Dec 2015 **Digital Signal Processing**
École polytechnique fédérale de Lausanne ***taught by Prof. Paolo Prandoni & Martin Vetterli***

Jan 2016 – May 2016 **Data Science Specialisation**
Johns-Hopkins University ***by Jeff Leek, Roger D. Peng & Brian Caffo***

Computer Skills

Programming	C, C++, Java, Shell script, Jython, Python
Scientific tools	Matlab/Octave, TensorFlow, R
Web	HTML, CSS, JavaScript, Ajax, JQuery, REST
Data structure	XML, JSON

Communication Skills

French	Fluent
English	Fluent

References

Denis Jouvet	Research Director, INRIA Multispeech denis.jouvet@inria.fr
Yves Laprie	Research Director, CNRS Multispeech yves.laprie@loria.fr