AGHILAS SINI

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615 Rue du Jardin Botanique ◇ Villers les Nancy , 54600 France (Professionnel)
17 Rue du Général Frère ◇ Vandoeuvre les Nancy, 54500 France (Private)

Research Interest

Speech and Image Processing, Data Science, 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 attended

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

Professional Experience

Engineer

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

Jan 2016 **IFCASL Project (Individualized Feedback for Computer-Assisted Spoken Language Learning)**
LORIA-INRIA Laboratory Nancy.
- 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.
- Improving speech text alignment for language learning using deep neural network, training network with TensorFlow and decoding with DL4J (IFCASL Corpus).
- Extraction of speech features for pitch detection using deep neural network.

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

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

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.

Activities & Independent Courses

Other Activities

- Data collection for IFCASL Project
- Member of Deep Learning Discussion Group at LORIA
- 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 – present **Data Science Specialisation**
Johns-Hopkins University ***by Jeff Leek, Roger D. Peng & Brian Caffo***

Dec 2015 – present **Machine Learning**
Stanford University ***by Andrew Ng***

Computer Skills

Scripting	Shell script, Windows Batch script, Jython, Python
Programming	C, C++, Java
Scientific	Matlab/Octave, Theano, R
Web	HTML, CSS, PHP, JavaScript, Ajax, JQuery
Databases	MySQL, PostgreSQL.
Protocols & APIs	XML, JSON, SOAP, REST
Tools	Git, Ant, Maven, Vim.

Language

Berber (native) **French** (fluent) **Arabic** (fluent) **English** (fluent), **German** (beginner)

Referees:

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