

AGHILAS SINI

(+33) 03 · 83 · 59 · 20 · 97 ◇ aghilas.sini@inria.fr

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

17 Rue du Général Frère ◇ Vandoeuvre les Nancy, 54500 France (Privete)

Research Interest

Speech and Image Processing, Data Science, Machine learning.

Education

Academic background

- | | |
|------|--|
| 2014 | Master 2 - Artificial Intelligence, Pattern Recognition and Robotics
<i>Université Paul SABATIER- TOULOUSE. France</i> |
| 2013 | Master 1 - Real Time Systems Engineering
<i>Université Paul SABATIER- TOULOUSE. France</i> |
| 2011 | B.Sc - Control System and Automation
<i>Université Mouloud MAMMERI- TIZI OUZOU. Algeria</i> |

Workshop attended

- | | |
|-----------------|--|
| 5-6 Nov
2015 | Workshop on "Feedback in Pronunciation Training"
<i>Hofgut Imsbach, Northern Saarland, Germany</i> |
|-----------------|--|

Professional Experience

Engineer

- | | |
|----------------------|--|
| Jan 2016
Mar 2016 | Lecturer in Web Programming
<i>IUT Charlemagne, Université de Lorraine, Nancy</i>
- JavaScript, Ajax, JQuery. For second year post baccalaureat students |
| Jan 2016 | IFCASL Project (Individualized Feedback for Computer-Assisted Spoken Language Learning)
<i>LORIA Laboratory Nancy.</i>
- 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 learner.
- Improving speech text alignment for language learning using deep neural network, training network with Theano and decoding with DL4J.
- Extraction of speech features for pitch detection using deep neural network. |
| Nov 2014
Jan 2016 | ORTOLANG Project (Open Resources and TOols for LANGuage)
<i>LORIA Laboratory Nancy.</i>
- Development of syntactic-semantic analyser for spoken documents in French language - open source tool JSafran released by LORIA. Includes dependency parser for oral speech and inclusion of inference of partial semantic role labels on top of syntactic parsing.
- Tool for semi-automatic alignment of speech and textual corpus - open source tool JTrans released by LORIA. Working on correction of speech and text alignment around silence segments.
- Interactive tool for speech signal processing and phonetics - open source tool JSnoori released by LORIA. Development of module for pitch estimation. |

Internship

- | | |
|----------------------|--|
| Mar 2014
Aug 2014 | Mapping of a sound environment for a mobile robot
<i>LORIA Laboratory Nancy.</i> <ul style="list-style-type: none">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. Charpillat, "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 & Independents 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	Digital Signal Processing
Dec 2015	<i>École polytechnique fédérale de Lausanne</i> taught by Prof. Paolo Prandoni & Martin Vetterli
Jan 2016	Data Science Specialisation
present	<i>Johns-Hopkins University</i> by Jeff Leek, Roger D. Peng & Brian Caffo
Dec 2015	Machine Learning
present	<i>Stanford University</i> 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

Kabyle	native
French	fluent
Arabic	fluent
English	intermediate
German	beginner

Referees:

Denis Juvet	Research Director, INRIA Multispeech denis.juvet@inria.fr
Emmanuel Vincent	Senior Researcher, INRIA Multispeech emmanuel.vincent@inria.fr
François Charpillat	Research Director, INRIA Larsen francois.charpillat@inria.fr
Yves Laprie	Research Director, CNRS Multispeech yves.laprie@loria.fr