## AGHILAS SINI

## Research And Development Engineer

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615 Rue du Jardin Botanique  $\diamond$  Villers les Nancy , 54600 France

#### Education

Master 2 - Artificial Intelligence, Pattern Recognition and Robotics
University Paul SABATIER- TOULOUSE. France
Master 1 - Real Time Systems Engineering
University Paul SABATIER- TOULOUSE. France
B.Sc - Control System and Automation
University Mouloud MAMMERI- TIZI OUZOU. Algeria

### Professional Experience

### Engineer

Jan 2016 Lecturer in Web Programming

Mar 2016 IUT Charlemagne, Université de Lorraine, Nancy.

- JavaScript, Ajax, JQuery, For second year post baccalaure at students  $\,$ 

Jan 2016 IFCASL Project Individualized Feedback for Computer-Assisted Spoken Language Learning LORIA 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.
- Extraction of speech features for pitch detection using deep neural network.

Nov 2014 ORTOLANG Project Open Resources and TOols for LANGuage

Jan 2016 LORIA Laboratory Nancy.

- Development of syntactic-semantic analyser for spoken documents in French language open source tool J-Safran 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 relesead by LORIA. Working on correction of speech 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

 ${\rm Mar}~2014$ 

## Mapping of a sound environment for a mobile robot

 $Aug\ 2014 \qquad \qquad LORIA\ Laboratory\ Nancy.$ 

• 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.

#### Computer Skills

**Programming** Shell script, Windows Batch script, Java, Jython, Python, C, C++

Scientific Matlab/Octave, TensorFlow, Theano, R, ROS Web HTML, CSS, JavaScript, Ajax, JQuery

Technologies XML, JSON, REST, Git, Ant, Maven, Vim, jenkins

### Language

Kabyle (native) French (fluent) Arabic (fluent) English (intermediate) German (beginner)

# Referees

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