

# AGHILAS SINI

## Research And Development Engineer

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615 Rue du Jardin Botanique ◊ Villers les Nancy , 54600 France (professionnel)

## Education

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

## Professional Experience

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### Engineer

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| Jan 2016 | <b>Lecturer in Web Programming</b>   |
| Mar 2016 | <i>IUT Charlemagne, Université de Lorraine, Nancy.</i><br>- JavaScript, Ajax, JQuery, second years post baccalaureat (Bac+2)   |
| Jan 2016 | <b>IFCASL Project Individualized Feedback for Computer-Assisted Spoken Language Learning</b><br><i>LORIA Laboratory Nancy.</i><br>- Modification and re-synthesis of learner audio samples using teacher audio samples based on Pitch Synchronous Overlap and Add algorithm<br>- Feedback to correct devoicing of final consonants in French spoken by German learners.<br>- improving speech text alignment for language learning using deep neural network, training network with theano and decoding with DL4J (IFCASL Corpus).<br>- extraction of speech features for pitch detection using deep neural network.   |
| Nov 2014 | <b>ORTOLANG Project Open Resources and TOols for LANGuage</b>  |
| Jan 2016 | <i>LORIA Laboratory Nancy.</i><br>- 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.<br>- Tool for semi-automatic alignment of speech and textual corpus - open source tool JTRANS released by LORIA. Working on correction of speech text alignment around silence segments.<br>- Interactive tool for speech signal processing and phonetics - open source tool JSnoori released by LORIA. Development of module for pitch estimation. |

### Internship

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| Mar 2014 | <b>Mapping of a sound environment for a mobile robot</b>  |
| Aug 2014 | <i>LORIA Laboratory Nancy.</i><br>• 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

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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.

## Computer Skills

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<b>Programming</b>	Shell script, Windows Batch script, Java, Jython, Python, C, C++
<b>Scientific</b>	Matlab/Octave, TensorFlow, Theano, R, ROS
<b>Web</b>	HTML, CSS, JavaScript, Ajax, JQuery
<b>Technologies</b>	XML, JSON, REST, Git, Ant, Maven, Vim, jenkins

**Language**

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