# **AGHILAS SINI**

# Research And Development Engineer (2 ans d'expérience)

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

#### **SKILLS**

## Dévelopement web Front

JavaScript, jQuery, Ajax CSS3, Boostrap 3, HTML5

# Simulation/Calcule Numérique

Matlab, Octave

# Géstion de Génération/Scafolding

Bower, Yeoman, Grunt, NPM

## Machine Learning/Data Science/Robotic

DL4J, Theano, TensorFlow, R, ROS

## **Programming**

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

# Protocols & APIs

XML, JSON, SOAP, REST

## Méthode / Analyse

Méthode UML, Agile(SCRUM)

## Gestion de configuration/Industrialisation

Git, Maven3, Jenkins

### **EDUCATION**

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

# January 2016 - March 2016

## Enseignant Vacataire

IUT Charlemagne, Université de Lorraine, Nancy. France

#### Principaux domaines d'intervantion

- Introduction à la programmation Web Front end
- Cours avancé en JavaScript, JQuery, Ajax, Rest.
- Mini Projet.

## Environnement Technique

• JavaScript, JQuery, Ajax, JSON, Rest.

# January 2016 - Present

### Ingénieur de Recherche et Dévellopement

LORIA-INRIA Nancy Laboratory. France

IFCASL Project Individualized Feedback for Computer-Assisted Spoken Language Learning

### Principaux domaines d'intervantion

- 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 theano and decoding with DL4J (IFCASL Corpus)
  - Extraction of speech features for pitch detection using deep neural network

#### Environnement Technique

• Java, Python, TensorFlow, Theano, R

### November 2014 - December 2015

#### Ingénieur de Recherche et Dévellopement

LORIA-INRIA Nancy Laboratory. France

ORTOLANG Project Open Resources and TOols for LANGuage

## Principaux domaines d'intervantion

- Maintenance évolutive d'outils d'analyse et traitement de signal de parole (JSnoori), d'alignment parole texte (JTrans), d'analyse simantique-syntaxique (J-Safran),
  - Re-factoring du code, de l'architecture.
  - Dévelopement de Portail web pour les outils.
  - Ecriture de test unitaire.
  - Ecriture de test de covering.
  - Ecriture de test d'integration continue.

#### Environnement Technique

- Shell Script, Jython, Java, Linux.
- Jenkins (INRIA platform), Clover.
- Yeoman, Bower, NPM, Grunt, Git.
- HTML5,CC3, JavaScript.

### Principaux domaines d'intervantion

- Maintenance évolutive d'outils d'analyse et traitement de signal de parole (JSnoori), d'alignment parole texte (JTrans), d'analyse simantique-syntaxique (J-Safran),
  - Re-factoring du code, de l'architecture.
  - Dévellopement de Portail web pour les outils.
  - Ecriture de test unitaire.
  - Ecriture de test de covering.
  - Ecriture de test d'integration continue.

## Mars 2014 - Août 2014

## Stage d'ingénieur de recherche

LORIA-INRIA Laboratory Nancy.

### Principaux domaines d'intervantion

• 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.

### **Environnement Technique**

- C/C++, Python
- Robot Audition HARK, ROS
- Kinect, TurtleBot, Linux.

### **PUBLICATION**

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.

#### **LANGUAGE**

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

#### REFERENTS

Yves Laprie Research Director, CNRS Multispeech

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Denis Jouvet Research Director, INRIA Multispeech

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