



en collaboration avec **lalilo**

[Toulouse] [M2 internship]

Research on alternative representations for automatic speech recognition on reading learning child's speech

Children are real learning machines!

However, after 200 years without major changes, the school lacks tools and methods and teachers lack the time to adapt their teaching to each child's own pace. And this is visible on the students who today are about ¼ to arrive in 6th grade with major difficulties to read. It is no longer possible to be satisfied with incremental innovations, the school system needs to be rethought! The teacher is the keystone of education, which is why we are dedicated to designing the pedagogical assistant that will revolutionize the way reading is taught.

Your mission :

You will work on alternative feature extraction methods for automatic speech recognition applied to children reading learning, in a classroom environment. The objective is to discover new representations that convey children-specific information and can improve the speech recognition accuracy. These alternative representations can be generated with signal processing techniques, or deep learning algorithms.

Your role will be to study the state-of-the-art to find alternative methods, implement those methods and evaluate their impact on the speech recognition system. Depending on the results, the work could lead to the writing of a research paper.

In the scope of a collaboration between the IRIT Laboratory and Lalilo, you will mainly work from the laboratory offices in Toulouse, and will benefit from the supervision of two researchers experts in audio/speech processing and machine learning.

Required skills :

- Python
- Theoretical knowledge in signal processing
- Theoretical knowledge in machine learning and deep learning
- Technical English
- Interested in research
- Autonomous, rigorous, being proactive, strong desire to learn

Appreciated skills :

- Bash
- Interested in innovation for education

Job conditions :

- End-of-study or gap year internship (4 to 6 months)
- Location: Toulouse
- When: From February 2020

How to apply :

To apply to this offer, send an e-mail to lucile.gelin@irit.fr with a CV and a motivation letter